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USSR Report

WORLD ECONOMY AND INTERNATIONAL RELATIONS

No 1, JANUARY 1987

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[Translation of the Russian-language monthly journal MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA published in Moscow by the Institute of World Economy and International Relations, USSR Academy of Sciences.]

CONTENTS

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ENGLISH SUMMARY OF MAJOR ARTICLES

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 158-159

[Text] V. Petrovskiy in the article "Security Through Disarmament" vividly shows that true security can be guaranteed only by curbing the arms race. The Soviet large-scale programme of disarmament formulated on January 15, 1986 gives a clear understanding that it is acting as a real factor of world policy. This program is a concentrated expression of a new political thinking inculcated into international practice, a fusion of philosophy and political activities which meets the demands of the time as a document of historical importance. Provision of security is increasingly turning into a political, rather than a military task, which might be solved only through political means. The author presents a clear understanding that one of the fundamental principles of an all-embracing system of international security is a strictly controlled lowering of the levels of military capabilities of countries to limits of reasonable adequacy and the ruling out a possibility to use this potential as an instrument of aggression. The "guaranteed security" by curbing the arms race "is a plan for delivering the planet from the atomic weapon already in the present century. The novelty of the programme, the author believes, lies in the fact that all the practical measures of disarmament are precisely defined in time and due consideration is given to general security, that would not be to the detriment of any country. The article elucidates world public opinion on large-scale Soviet proposals tabled during the Soviet-American summit in Reykjavik. It points out that the USSR stands for the termination of nuclear tests, avertion of an arms race in outer space, the ban on chemical and bacteriological weapons and the destruction of all the stocks of these weapons, for substantial cuts on conventional arms in Europe from the Atlantic up to the Urals on the principle of equal security for both sides--all these proposals and many others constitute the gist of the programme of security provision by curbing the arms race. The article focuses on the importance of the initiative of the socialist states in building an all-embracing system of international world security.

I. Seiphulmulukov in the article "The New Energy Situation in the World and the Dynamics of Oil Prices" examines the state of affairs in the world energetics and defines the perspective of oil price behavior in the period up to the end of the century. The present serious worsening of the situation in the oil market, the tangible weakening of the OPEC countries' position and

drastic cut of prices are also subjects dealt with in the article. The author tries to answer why for a decade and a half the problem of oil prices has attracted the attention of broad circles of specialists both in the USSR and abroad. In particular he seeks to explain what has caused this new situation in nonsocialist world energetics, is it a temporary "respite" before a new aggravation of energy crisis or on the contrary it signifies the advance of a low price epoch? All the problems are correlated with the world economy and international economic relations. The author arrives at the conclusion that under the existing situation international cooperation is of vital importance for an essential amelioration of the world energy situation. It is also necessary to establish control over the activities of the oil TNC's, introduce restrictions over certain market factors and raise the role of state regulation in determining the perspective of development of energetics. Of positive importance would be the conclusion of long-term agreements guaranteeing not only stable oil deliveries but also prices taking into account both producing and consuming countries, the socialist countries naturally included.

"Export of Capital and Internationalization of Production in the U.S. Machinebuilding" by M. Stepanov is dedicated to the analysis of the internationalization process within the most high technology sector of the U.S. industry namely machinebuilding industry. The most technologically advanced corporations in this industrial sector are plagued by special international economic aggressiveness abroad. Therefore the objective trend of growing internationalization adopts the shape of an increasing transnationalization within the framework of private entreprenial structures on the grounds of the accelerated foreign investment by U.S. companies. The prominent role in this internationalization through direct investments overseas belongs to the highly diversified corporations. The stimuli, organization structure, strategic guidelines of the overseas production are outlined in the article. The U.S. domination in the field of direct investments is stressed. Abundant data supports the findings of the article. It is said that the rate of profit considerations play an important role in decisionmaking about the overseas investments. The drive for an access to the newest technology and the possibility to employ the qualified personnel is also a very important reason for the expansion of the activities abroad. The structural crises in the U.S.A. urged the revision of the attitude towards joint ventures with foreign companies. The author concludes with the investigation of the TNC's influence on the international integration processes noting its contradictory character.

V. Zaitsev in the article "Japanese Scientific and Technological Policy: Changing Priorities" states that by the mid-1970's Japan has accomplished the most ambitious goals of its postwar development strategy. Scientifically and technologically Japan has appeared abreast with the leading imperialist countries. Traditional Western reseachers of technological progress in Japan emphasized the Japanese unique capability to imitate the best samples of foreign technology rather than perform its own pioneer R&D and carry out the original innovation. Rather a small portion of national basic research in comparison with the massive imports of foreign technology was presented as a convincing evidence of the lack of Japanese technological creativity. Though partially true this assessment of Japanese scientific and technological

development is reduced to a rather narrow perspective. There's an indication in the article that Japanese technological policy was based on the constant and comprehensive study of the world technology trends and it was appropriately and timely adjusted in the 70's. The analysis commences with the overview of Japanese scientific and technological potential and the assessment of the successes in the liquidation of the technological gap. New trends of the early 80's attract special attention. According to the author the transitional period to the new stage of scientific and technical progress has begun bringing about the qualitative shifts. It is expected that Japan will be able to provide for the 5.0 percent GNP rate of growth with the scientific and technological contribution of 56.1 percent. The state monopoly regulation of technological progress in Japan, its guidelines, priorities, forms and tools are outlined. The findings give evidence to the noticeable efficiency of the state programming of novel technologies development. The state support of R&D is likely to grow in the long run, especially in the fields that concern the structural reshaping of Japanese economy. This support would be of ever increasing significance in providing for the Japanese international compatibility in the imperialist rivalry.

N. Arbatova in the article "Italian Foreign Policy in the 80's" analyses the role and peculiarities of the country's foreign policy course in the context of East-West relations, within the main alliances of the West namely NATO and EC, as well as of the North-South direction. The author closely examines the internal and external factors which have strongly influenced the foreign policy of Italy in the 80's. Due attention in the article is given to the examination of specific features of the Italian-American relations and their impact on Italian diplomacy in the early and mid 80's. The author notes that the growing dependency on the USA in the early 80s negatively influenced the foreign policy of Italy. On the one hand, the bellicose anti-Soviet course of the US policy has enforced rigid restrictions upon Italian foreign policy and primarily its "Eastern" direction. On the other hand Washington's aggessive course has stimulated the emergence in Italy of new trends namely: mounting military-political activities, specifically in the Mediterranean region. The author notes that the Italian foreign policy being shaped under the centrifugal and centripetal trends of the main groupings of the West and within the limits of such complex relations Washington can hardly expect unconditional submission on the part of its allies-rivals to its policy of diktat, especially to the detriment of their own interests.

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PETROVSKIY URGES 'SECURITY THROUGH DISARMAMENT'

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 3-13

[Article by V. Petrovskiy: "Security Through Disarmament"]

[Text] I

The Soviet comprehensive program of security through disarmament formulated a year ago in M.S. Gorbachev's 15 January statement is now acting as a real factor in world politics. It is a question not of an abstract construction or some outline but a concentrated expression of the new political thinking which is increasingly becoming a part of international politics.

This is why the 15 January 1986 statement--this blend of philosophy and political action--is perceived everywhere as a document of historic significance.

Having thoroughly analyzed the present situation on our planet and evaluated the positions and practical actions of other states, the Soviet leadership concluded that in the modern world, which is interconnected in the face of the nuclear-space reality, it is possible and vitally necessary to accomplish a fundamental change for the better in the development of the international situation and free mankind from the fear of self-annihilation.

In the qualitatively new situation, when civilization has been confronted with the choice--existence or nonexistence--it is no longer possible to act in accordance with the old yardsticks. What are required now are new approaches and a new philosophy of politics rejecting the age-old ideas of the permissibility and acceptability of wars and armed conflicts.

Recognition that it is not possible to "ride a white charger" into a nuclear wilderness is no longer enough. The realities of the nuclear-space era are stern. The destruction of civilization would be of a general nature. The first nuclear strike, were someone nonetheless to venture to launch it, would be an act of suicide. Radioactive death and "nuclear winter" know no state, geographical or ideological boundaries. This threat has made states and social systems equal, linked them inseparably by a common fate and made peace the highest value for all in our era.

It follows from this that today no state can any longer harbor illusions concerning its own invulnerability with the aid of military-technical means alone, even having created the most powerful defenses--whether on earth or in space. Ensuring security appears increasingly as a political task, and it can only be accomplished by political means. As the Mexican declaration rightly observes, "in order to prevent a repetition of Hiroshima globally not simply more profound knowledge or new technology but a display of great wisdom is needed."

Security cannot be built ad infinitum on fear of retribution. The price of continued adherence to the "deterrence through intimidation" doctrines, with which attempts are made to justify the stubborn continuation of nuclear testing, abandonment of the SALT I and SALT II agreements and the undermining of the ABM Treaty, is inordinately high. The spread of the arms race to space would be a serious and, it is perfectly possible, insurmountable barrier en route to a nuclear-free world, would make the dividing line between war and peace even more fine and would be a constant threat to the security of each and everyone. This is why the "star wars" program obscenely called by the United States the "strategic defense initiative" appears as the concentrated expression of militarist designs and an unwillingness to remove the nuclear threat looming over mankind and the embodiment of a myopic egotistical approach to the problem of international security.

The appearance of new weapons of warfare threatens the handover of political decision-making to computers. As a result people will prove the captives of technology, which, as we were tragically reminded by the Challenger and Chernobyl AES catastrophes, may malfunction. In addition, such sophisticated arms systems are appearing that negotiating control of them will be practically impossible.

Renunciation of the gamble on military force as a means of ensuring security is dictated not only by the devastating power of modern weapons. No less important, perhaps, are a number of other political and economic factors. Their significance is growing many times over under the conditions of global interdependence between states.

Mankind has found itself faced with complex problems--energy, raw material, food, ecology. The gap in the levels of economic development between states is becoming increasingly threatening, and the developing countries' debt to the West has reached catastrophic proportions. The solution of these problems requires broad equal and mutually profitable cooperation. Meanwhile the arms race is placing insurmountable obstacles in the way of such cooperation and, consequently, a strengthening of national and international security.

As far as military security proper is concerned, not military superiority and not intimidation nor reliance on force but the principle of sufficiency, given a general trend toward a constant reduction in the level of arms, should be the sole justified approach thereto under present conditions.

What characterizes sufficiency? The Soviet Union proceeds from the fact that in the arms sphere it is determined primarily by the requirements of defense

against aggression. This is what is taught by historical experience. Immediately following its birth the Soviet country, whose first foreign policy enactment was Lenin's Decree on Peace, found itself forced to resist foreign armed intervention. And then the harsh fact had to be recognized that, as V.I. Lenin, the founder of our state, observed, the most peaceable people and the most devoted defenders of their fatherland "will be wiped out by an enemy immediately if they are not sufficiently armed" (1).

The Soviet concept of sufficiency is entirely defensive. It rejects an aspiration to military superiority. On the contrary, it provides by its very essence for a reduction in arms based on reciprocity with other countries. After all, we only need weapons to the extent that the other side has them. The Soviet Union, as the CPSU Central Committee Political Report to the 27th party congress observes, sees as a foundation of an all-embracing security system "a strictly controlled reduction in the levels of states' military potentials to the limits of a reasonable sufficiency." It proceeds here from the fact that the level of opposition is currently inordinately high. Under the conditions of peaceful coexistence it can and has to be lowered, without disturbing the existing military balance and the evolved system of security. The USSR relies here on the undoubted fact that true equal security is guaranteed by the maximally low level of strategic balance, from which it is essential to exclude completely nuclear and other types of weapons of mass destruction. Restricting military potential to the limits of a reasonable sufficiency means precluding the possibility of its use as offensive potential, potential of aggression.

In this sense the concept of sufficiency is not so much military, rather political. For ourselves, we would consider sufficient not simply the lowest level of military balance but even better--replacement thereof by a system of political relations, rules of international law and the extensive spread of the political mentality of peace, which would sufficiently guarantee the security of both the USSR and all other states.

In other words, from the viewpoint of military security also it is arms limitation and disarmament which are the central artery and main direction affording a real material guarantee of the preservation of peace.

None of this means, of course, that other paths leading to the creation of a system of general international security should be set aside. These include a strengthening of stability on a regional scale, the elimination of a variety of conflict and crisis situations, the surmounting of backwardness and respect for human rights by way of safeguarding them not in word but in deed. In other words, ensuring states' security not only in the military and political but also in the economic and humanitarian spheres, where there should also be no room for the use of force, threats and pressure, is an acute issue.

The Soviet Union supports consistent, concerted international efforts being made in all these directions. Attempts to establish between them, however, an artificial, we stress, artificial, rigid linkage are, at least, impractical. Essentially, however, they frequently cover merely an absence of political will and a reluctance to strive for progress in any of the said directions.

In the practical plane the program of security through disarmament advanced by the Soviet Union on 15 January 1986 proposes: destruction of all means of mass extermination; guarantee of peaceful space; an appreciable reduction in armed forces and conventional arms; restriction of states' military potentials to the limits of a reasonable sufficiency.

The core of the program--large-scale, bold and specific--is the plan to free the planet of nuclear weapons in this century even, given an effective ban on strike space-based arms. Its fundamental novelty is the fact that it is a question not simply of the ultimate goal but of practical measures of disarmament precisely computed in time and intended for implementation in a historically short period of time. The interests of the security of all are taken into consideration to an equal extent, without detriment to anyone.

Also obvious is the most profound democratism of the Soviet program. After all, it is aimed in its very essence at self-disbandment of the "nuclear club". The prestige and dignity of a great power should be associated not with nuclear or other weapons of mass annihilation but with the contribution of each of them to disarmament and the formation of security for all without exception.

The tremendous constructive potential of the program and the new political thinking which it has engendered was visibly embodied in a package of major Soviet proposals submitted at the Soviet-American top-level meeting. An understanding concerning the sequence of practical steps leading to the elimination of nuclear arms and fundamental agreement on a whole set of measures of nuclear disarmament (strategic offensive arms, intermediate-range missiles, nuclear testing, nonwithdrawal for 10 years from the ABM Treaty) were reached in Reykjavik. However, an accord which would have meant the start of a new era in the life of mankind--the nuclear-free era--did not come about owing to the United States' stubborn reluctance to abandon attempts to ensure its security thanks to the continuation of power politics, that is, through military-technical solutions, with the aid of weapons. It is this which explains its "unshakable devotion" to the SDI for this program is not a detail but the concentrated expression of a particular policy.

Despite this, the meeting in the Icelandic capital was an important event of international life in the struggle against the arms race and for the banning and elimination of nuclear weapons and for averting the military threat.

As the Bucharest session of the Warsaw Pact Foreign Ministers Committee held 14-15 October 1986 emphasized, the Soviet Union and its allies are fully resolved to continue the dialogue and active struggle for a halt to the nuclear arms race and the creation of an all-embracing system of international security and peace.

The states which took part in the session expressed support for the USSR's position at the meeting in Reykjavik [and] the large-scale and far-reaching Soviet proposals. They called on the United States and the other NATO

countries to recognize the serious nature of the present situation in the world and approach the Soviet Union's proposals constructively and from standpoints of realism and responsibility.

Having supported the Soviet Union's high-minded position in Reykjavik, the participants in a working meeting of leaders of the fraternal parties of the socialist members of CEMA in Moscow 10-11 November 1986 emphasized the need for an increase in joint efforts in the interests of the struggle for the elimination of nuclear arms and a reduction in conventional arms and a strengthening of peace and international security.

The USSR delegation at the Soviet-American negotiations on nuclear and space-based arms in Geneva submitted on 7 November 1986 major proposals pertaining to all areas of the nuclear-space complex. It was guided by the principles agreed at the Reykjavik meeting. And although the "new" American proposals in Geneva are manifestly aimed at a revision of the package of agreements formulated in Iceland, the Soviet side is continuing to strive patiently and persistently to prevent any backsliding from the Reykjavik heights and translate the existing fundamental accords into the language of diplomatic documents.

III

Of course, questions of nuclear disarmament cannot be completely solved merely in the sphere of USSR-United States relations. What are needed are the vigorous actions of all states and truly general efforts, their multiplication, and concentration in the decisive areas and the commissioning of the constructive creative potential of the world community of states. As Swedish Foreign Minister S. Andersson rightly declared at the UN General Assembly 41st Session, "nuclear disarmament is the concern not only of the nuclear powers."

An important area of multilateral efforts is a halt to nuclear testing. This is now the step that is simplest, clearest and most ripe for solution in order to wind down the arms race. The Soviet Union considers it really essential to begin, finally, full-scale negotiations on a halt to nuclear explosions conclusively and forever. This position corresponds to the will of the overwhelming majority of states demanding that the protracted succession of nuclear tests geared to an upgrading of nuclear arsenals and the creation of space-based weapons be ended.

Now, when the vistas of a nuclear-free world are appearing, the following questions inexorably arise: how is it possible to negotiate the elimination of nuclear arms if simultaneously they continue to be upgraded? How is it possible to demand of one's partners trust if one leaves oneself the freedom to undermine equality in the course of disarmament?

It has long been known that politics is the art of the possible. But in the nuclear-space age a new understanding of the art of politics is born, one which has the ability and courage to rise above national-state interests and make a choice, however difficult, in favor of the general interests of mankind. This decision which was difficult for us was the four-time extension

of the unilateral moratorium on nuclear explosions. Seventeen months of silence at the Soviet test ranges is a real, tangible contribution to the struggle for the primary right of mankind--the right to the future.

What is the purpose of this Soviet action and why is it leaving such a profound trace in international relations?

In international life, the ban on testing has come, primarily, to occupy the place of a key problem of the transition to a nuclear-free world. Further, there is no longer any problem of monitoring a ban on testing. American specialists with the most modern equipment have been monitoring the situation at the Soviet test ranges. The Soviet Union is open for all forms and methods of monitoring a suspension of testing, including a readiness for the creation of an international, supranational network or system of verification. Valuable recommendations in this respect were expressed by the nonaligned conference in Harare. Finally, the Soviet moratorium has shown that nonconduct of tests is a feasible proposition, given, of course, political will on both sides.

As a result the question of the start of negotiations on a complete ban on nuclear testing has been put on a practical footing. And this, perhaps, is the main positive result of the moratorium and other Soviet steps on this question.

From the podium of the United Nations the head of the Soviet delegation, E.A. Shevardnadze, declared that the Soviet Union was ready to sign a treaty on the complete prohibition of tests of nuclear weapons at any time and at any place, including here, within the United Nations. All versions--bilateral Soviet-American negotiations, three-power negotiations with the participation of Great Britain, multilateral negotiations within the Geneva Conference on Disarmament framework--are acceptable to the USSR.

Another essential direction of an increase in multilateral efforts is nuclear disarmament and the achievement of reliably monitored accords aimed at a radical reduction in and the complete elimination of nuclear weapons. In parallel with the Soviet-American negotiations on nuclear and space-based arms the Soviet Union is proposing an immediate start on an exchange of opinions on these questions among all the nuclear powers.

In the course of such a multilateral exchange of opinions it may be possible to examine a number of essential specific questions, in particular, concerning a halt to the production of fissionable and synthesizing nuclear materials for the purpose of the development and creation of weapons, the procedure for the elimination of nuclear arms, fundamental approaches to verification of nuclear disarmament by multilateral measures and also the time that the powers associate themselves with this process. This proposal, which was submitted by the USSR at the UN General Assembly 41st Session, proceeds from the fact that the practical implementation of nuclear disarmament measures affecting the corresponding powers would occur following a radical reduction in the nuclear arsenals of the USSR and the United States.

The Soviet Union also advocates that the Geneva Conference on Disarmament get down, finally, to businesslike negotiations on nuclear disarmament and

measures to prevent nuclear war. It is ready to support all constructive ideas. For example, some proposals which are acceptable are those which concern the elaboration of multilateral agreements on lessening the danger of nuclear war similar to the bilateral agreements concluded with the participation of the USSR in the 1970's. The Soviet Union supports businesslike discussion of the proposal of UN Secretary General Perez de Cuellar concerning the creation of a multilateral center for reduction of the nuclear danger.

The Soviet Union shares the sentiments of broad public circles in support of the creation of nuclear-free zones. It supports in principle the proposal concerning the formation of a nuclear-free corridor in Central Europe and such zones in North Europe, the Balkans, on the Korean peninsula and in Southeast Asia. It calls on all the nuclear powers to guarantee such a zone in the South Pacific. The USSR has a sympathetic attitude toward formulation of the question concerning the creation of a zone of peace and cooperation in the South Atlantic, as proposed by Brazil, and also toward the idea of declaration of the South Atlantic as a nuclear-free zone.

Particular importance is attached to the task of winning increasingly new territory from nuclear weapons. The utmost strengthening of the conditions of their nonproliferation is advanced as an urgent task of multilateral activity on the international scene. It needs to be tackled in unison--by both the nuclear and nonnuclear states. A dependable basis for joint actions is the Nuclear Nonproliferation Treaty, which has proven its effectiveness and viability. The growing nuclear ambitions of Israel, South Africa and Pakistan have to be seen, however.

In the Soviet Union's opinion, there should be the speediest implementation of the recommendations of the third conference to study the effect of the Nuclear Nonproliferation Treaty held in 1985. It is necessary to continue efforts for a further enhancement of the role of the IAEA both in strengthening the practice of nonproliferation and in creating safe conditions for the use of nuclear power for peaceful purposes.

IV

A general concern is prevention of an arms race in space. Over 150 countries are voting at UN General Assembly sessions for the immediate solution of this question. The Soviet Union is profoundly convinced of the need for a radical ban on the creation, testing and deployment of strike space-based arms.

At the same time the USSR also supports any other steps in this direction, primarily a strengthening of the operation of the ABM Treaty, which it proposed in Reykjavik. U.S. President Reagan declared that he needs the SDI program to ensure that America and its allies remain invulnerable in the event of a Soviet missile attack. But it is our country which has proposed the destruction of all strategic nuclear arms possessed by the United States and the USSR, under strict supervision, what is more.

One wonders whence the need to safeguard "the freedom of America and its friends" against Soviet nuclear missiles--after all, these missiles would no

longer exist! If there are no nuclear weapons, why are defenses against them necessary? In the light of what occurred in the Icelandic capital it finally became clear that the entire "star wars" venture is of a purely militarist nature and is geared to the achievement of a military advantage over the Soviet Union. The chimera of superiority proved stronger than the capacity for taking the step separating the sides from the adoption of decisions which might have been historic for the entire nuclear-space era.

Nonetheless, it is essential to tackle the question of preventing an arms race in space immediately. The time has come finally to begin at the Geneva Conference on Disarmament negotiations on the conclusion of an agreement or, correspondingly, agreements on the prevention of an arms race in near-Earth space in all its aspects, including the elaboration of accords on such partial steps as a ban on "space-to-earth" and "space-to-space" space-based offensive systems, renunciation of the creation of new and elimination of existing antisatellite weapons and guaranteed immunity for artificial Earth satellites.

V

A mobilization of efforts is also essential for the accomplishment of another urgent task--ridding the planet of arsenals of chemical death. Promising progress has been made at the Geneva Conference on Disarmament. In April 1986 the USSR submitted new proposals clearing the way to an agreement, which may be reached in 1987. Their essence is, given dependable verification, eliminating in as short a time as possible both the chemical weapons themselves and the industrial base for their production. The said goal is directly contradicted by the American plans connected with binary chemical weapons intended (with whatever reservations this is hedged around) for Europe.

The main thing is prompting all states to refrain from the production of new types of chemical weapons and their deployment on the territory of other countries and to withdraw those already deployed overseas to within the boundaries of the national territory of those to whom they belong. The Soviet Union's position here is flexible and open to all ideas moving in the direction of the limitation and not augmentation of the weapons. In particular, the USSR supports the PRC's proposal that all countries capable of producing chemical weapons refrain from their testing, production, transfer and deployment up to the conclusion of a convention on the prohibition thereof.

The creation of zones free of chemical weapons would seem useful. The Soviet Union supports the creation of such zones in Central Europe and in the Balkans and is ready to guarantee their status, if the United States does the same.

An important sphere of the application of wide-ranging efforts should be the establishment of a ban on the creation of nonnuclear arms based on new physical principles, which in terms of their destructive capabilities approximate nuclear or other weapons of mass extermination.

VI

The movement for genuine security through disarmament presupposes that conventional arms and armed forces be the subject of urgent concerted reductions together with the elimination of weapons of mass annihilation.

The point is that modern so-called conventional arms directly approximate weapons of mass destruction in terms of a number of specifications. Serious concern is being evoked by the reports of the United States' plans to speed up the introduction in the NATO arms system of technology for the rapid refitting of conventional weapon delivery systems for the delivery of nuclear weapons. Realization of these plans would seriously undermine the possibility of verification of nuclear disarmament measures, lower the "nuclear threshold" and threaten a destabilization of the military-strategic situation.

The Soviet Union and its Warsaw Pact allies are prepared in the conventional arms sphere also to go as far as other states. They have presented specific proposals concerning a very substantial reduction in armed forces and arms in Europe from the Atlantic to the Urals, given far-reaching verification. It is a question of considerably reducing the level of military danger on the continent. At the start of the 1990's even the reductions would amount to 25 percent on both sides--in a sum total of more than 1 million men. Success at the Vienna talks on a mutual reduction in armed forces and arms in Central Europe would also be important. The USSR proposes a reduction--to the limits of a reasonable sufficiency--in armed forces and conventional arms in Asia also.

Finally, it is essential to erect dependable barriers in the way of the proliferation of conventional weapons. The adoption of measures to prevent the spread of so-called inhumane types of conventional weapons, which are covered by the 1981 international convention, is also becoming increasingly urgent. The prolongation by the United States and a number of its allies of ratification of this convention is essentially impeding its conversion into an effective instrument of arms limitation.

The scrupulous position of the USSR is such: it would like generally not to have its forces anywhere beyond its national borders. This question also is open for discussion. Its solution is perfectly possible under conditions of strengthening trust and the implementation of measures of military detente.

In order to transfer the question of curbing the arms race in the seas and oceans to a practical footing it is essential to begin the corresponding negotiations with the participation of all the large naval powers and other interested states. The USSR supports measures in this sphere both globally and primarily in regions of the Pacific and Indian oceans and the Mediterranean.

The Indian Ocean should be a zone of peace, in which there would be no room for the presence of naval formations of states whose shores are not washed by its waters. What do we have in mind? Not sending there large naval formations, not conducting military exercises and not expanding and not modernizing the military bases of the nonlittoral states which have such bases.

The USSR has submitted a set of proposals aimed at ensuring peace and security in the Mediterranean. At the UN General Assaembly 41st Session it advocated the creation within the UN framework or outside thereof of the appropriate mechanism for the formulation of practical measures in the direction of conversion of the Mediterranean into an area of stable peace, security and cooperation.

The time has come to begin negotiations on a reduction in the Pacific in the activity of military fleets, primarily ships fitted with nuclear weapons. A limitation of the rivalry in the sphere of antisubmarine weapons, specifically an agreement to refrain from antisubmarine activity in certain zones of the ocean, would help to strengthen stability. This, incidentally, would also be an appreciable confidence-building measure.

Naturally, attention is concentrated in questions of a limitation of and reduction in naval activity and arms primarily on the military fleets of the USSR and the United States--the world's biggest. The measures and negotiations in this sphere proposed by the Soviet Union could at the first stage apply to the USSR and the United States with their subsequently being joined by other major naval powers.

In connection with the fact that many countries are raising the question of the limitation of nuclear naval arms, the Soviet Union agrees to study possible ways of also reducing this component of states' naval power both in the overall context of measures to limit it and at the corresponding negotiations on nuclear weapons. As a whole, however, the question would be radically solved as the program of the complete elimination of nuclear weapons proposed by the USSR was implemented.

From the issue of increasing the security of sea-lines of communication and strengthening conficence-building comes the question of elaborating a multilateral accord on the prevention of incidents on the open sea and in the airspace above. The Soviet-American and Soviet-British agreements which already operate in this connection could be taken as a basis here.

VII

An obligatory accompanying measure of all bilateral and multilateral accords is an all-embracing, strictest verification at all stages of the arms reductions with the use of both national technical facilities and international procedures, up to on-site inspection. The Soviet Union is ready to negotiate any additional verification measures. In addition, if the USSR and the United States embark on the path of nuclear disarmament, such measures could assume an increasingly strict nature. In a nuclear-free world requiring particular responsibility verification should be practicable, all-embracing and convincing, create complete confidence in the dependability of compliance with agreements and contain the right to on-site inspection.

A palpable consequence of realization of the disarmament proposals would be the release of material resources and intellectual and technical potential,

the channeling thereof into development needs and the solution of present-day global problems, including the elimination of economic backwardness, starvation, poverty and disease.

Each measure of arms limitation and reduction, each step toward a secure world should bring people a real improvement in their living conditions. The Soviet delegation at the UN General Assembly 41st Session was guided by this, in particular, and in respect of the achievement of an accord on a real reduction in states' military spending, it proposed the founding of an international foundation for assistance to the developing countries. Some of the resources saved by the participants in military alliances and also other industrially developed countries subscribing to such accords would be transferred to it. The USSR would be agreeable to the projects and programs of the international foundation being realized, in particular, along UN channels, given appropriate supervision on the part of the foundation.

As a whole, the USSR proposes a really peaceful alternative to running military production lines--to competition in the buildup of nuclear arsenals, cooperation in the use of the peaceful atom under the conditions of the international practice of the safe development of nuclear power engineering. To "star wars," it proposes "star peace," that is, interaction in peaceful space, the creation of a world space organization and the implementation of large-scale projects by joint efforts. To the production of chemical arms, there could be unification of efforts in the development of peaceful chemical industry. Great satisfaction is evoked by the decision of the second conference to study the effect of the Convention Banning Bacteriological (Biological) Weapons, which was held in Geneva recently, concerning the development of peaceful cooperation in promising spheres of bacteriology. All this is a progressive sphere of development of the latest technology, profits and the creation of jobs, whether under the conditions of the market or planned economy, and introduction of the developing countries to S&T achievements.

The program of security thropugh disarmament proposed by the USSR provides for the utmost strengthening of the legal basis of this process, proceeding from the fact that the way to genuine security lies via the achievement of binding promising accords on a limitation of and reduction in arms. At the present critical time, when the task of the formulation and conclusion of new agreements designed to lessen materially the military danger is so acute, there is a particularly insistent need for a solicitous attitude toward agreements which already exist and their strictest observance by all subscribers and in full measure. It is extraordinarily important to refrain from any actions leading to an undermining or circumvention of such agreements.

The actions of the United States, which, having gone beyond the limits determined by the SALT II Treaty on strategic arms, has in fact trampled this most important agreement, merit the most severe censure in this connection. Its permanent value is that it enshrined military parity between the USSR and the United States and for a whole number of years limited the nuclear arms race in its central direction--in the sphere of strategic offensive arms. Compliance with this treaty ensured strategic stability and served as a point

of departure for the search for ways to reduce and eliminate nuclear weapons. The United States' decision to cancel the SALT II Treaty was dictated by nothing other than Washington's aspiration to break up the military parity between the USSR and the United States and secure military superiority for itself.

Of course, in accordance with a number of agreements, their subscribers have the right to annul the corresponding commitment, guided by their highest national interests. However, today mankind's highest national interest is a narrowing of the sphere of the material preparation for war. For this reason the Soviet Union proposes that states voluntarily waive use of their right of exit from arms limitation agreements and abide scrupulously by the commitments they have assumed.

VIII

Particularly great in states' collective efforts are the role and responsibility of the United Nations. The era of specific and largely nonstandard actions which is beginning now, is confronting it with new tasks and demanding a serious restructuring for the purpose of increased efficiency and conversion into a true center of coordination of states' actions pertaining to the removal of the material basis of military danger.

The United Nations is called upon to perform an irreplaceable, unique role in progress toward a world without nuclear weapons, a world in which the security of each will be based on the security of all and the force of law and morality and not weapons. As Mexican President Miguel de la Madrid rightly observed in his speech at the UN General Assembly 41st Session, the organization should "guarantee peaceful and intelligent coexistence".

The Soviet Union supports the increased efficiency of the UN mechanism in the disarmament sphere and a fruitful UN General Assembly Third Special Disarmament Session in 1988 and the speediest creation of a preparatory body for this purpose. It actively supports Cyprus' proposal concerning special UN Security Council sessions to study questions of preventing nuclear war and of disarmament. This is in keeping with the Soviet idea of the establishment of a dialogue among the nuclear powers which are permanent members of the UN Security Council and a roundtable meeting of their leaders.

The UN General Assembly 41st Session graphically demonstrated the change in the mood of the world community--orientation toward specific deeds, multiplication of constructive efforts and an endeavor to begin real movement toward a nuclear-free world and general security through disarmament. Fatigue from rhetoric which has built up in recent years is clearly being replaced by the vigor of action.

Recent events are convincing testimony that the movement toward a secure, nuclear-free world is practically possible and materially feasible. The accords arrived at in Stockholm on confidence-building measures in Europe, the conclusion in Vienna of two conventions laying the foundation for an international system of the safe development of nuclear power engineering and the positive results of the second conference to study the effect of the

Convention Banning Bacteriological Weapons testify that the shoots of the new political thinking and behavior of states are, albeit with difficulty, blazing a trail for themselves. Together with Reykjavik they are a signal for action for all who can and should play their part in support of peace, detente and disarmament.

"Security through disarmament"--thus did the UN General Assembly First Special Disamament Session define the arterial direction of states' efforts in the nuclear-space era. This direction was formulated also in the documents of the Conference of Heads of State and Government of Nonaligned Countries in Harare.

It is truly difficult to overestimate the significance of the socialist states' initiative on the creation of an all-embracing system of international security in the business of introduction of the new thinking to the practice of present-day international relations. The system of a secure world is an alternative to the system of international relations resting on the brittle "balance of terror". As the discussion on the question of the creation of an all-embracing system of international peace and security submitted by a group of socialist states for examination by the UN General Assembly 41st Session showed, such a system corresponds to the interest of the world community in dependable guarantees of its survival in the nuclear-space era. The Delhi Declaration signed by the top leaders of the USSR and India on 27 November 1986 formulates principles of a nonviolent world free of nuclear weapons which provide a specific answer to the question of what an all-embracing system of a secure, nuclear-free world should look like.

Of course the supporting structures of the edifice of general security should be laid both in the military and in the political, economic and humanitarian spheres. It is not a question of what comes first--disarmament or trust, a reduction in military arsenals or settlement of regional conflicts. It is possible and necessary to move toward security simultaneously in all directions, multiplying efforts in all spheres. Political realism demands, however, recognition here of the unique significance of disarmament as a process creating a material guarantee of security and trust and installing a physical barrier to wars. Only disarmament can be the strong foundation of the edifice of a secure world. Building such an edifice on piles of weapons, however, is the same as erecting it on sand.

As the USSR Supreme Soviet appeal "To the Parliaments and Peoples of the World" adopted on 19 November 1986 emphasized, "there is room for all states in the general process of man's liberation from the nuclear burden. There are no big and small countries and peoples when it is a matter of the salvation of civilization. This concerns everyone and should be the concern of all."

The value of time--each month, week, day--is growing extraordinarily today. There can be no return to the past to rectify and change something there. Only the present and future, our common future--which will very soon, before we have time to turn around, be history--can be changed. What it will be like, what kind of bill we will present to our descendants, will depend on the will

and prudence of all states participating in international intercourse. With regard for the critical seriousness of the time factor immediate emergence on the path leading to security through disarmament is essential.

The Soviet Union is doing everything in its power for this.

FOOTNOTE

1. V.I. Lenin, "Complete Works," vol 35, p 408.

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PAST, FUTURE OF WORLD OIL PRICES PONDERED

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 14-28

[Article by I. Seyfulmulyukov: "The New World Energy Situation and Oil Price Dynamics" (*)]

[Text] The state of affairs in world power engineering and the problem of the oil price has for 15 years now continued to attract the attention of a broad range of specialists both in our country and abroad. This interest is perfectly natural: it is difficult to name another key sphere of the world economy in which in this time there have been such large-scale, abrupt and unpredictable changes having a considerable impact on the economy of practically all countries, engendering a set of new phenomena in world-economic relations and exacerbating international relations in many areas. As is known, only very few economists at the start of the 1970's were predicting the onset of an energy crisis, and none of their forecasts, even the boldest, managed to foresee its true proportions. Also largely unexpected, incidentally, was the sharp deterioration being observed currently in the conditions of the oil market, the palpable weakening of OPEC's positions and the catastrophic fall in the price of liquid fuel.

What are the reasons for this new situation in the power engineering of the nonsocialist world, and is it a temporary "breathing-space" before the next exacerbation of the energy crisis or, on the contrary, does it mark the onset of an era of low oil prices? The answer to these questions is important for determining the general prospects of development of the world economy and international economic relations.

I

The sudden fall in the price of oil at the end of 1985-start of 1986 once again exacerbated the arguments among specialists concerning the question of the causes and essence of the energy crisis. As is known, Soviet studies devoted to the energy problem rightly highlight two closely interconnected aspects thereof: the natural-economic or global aspect inasmuch as to this extent or the other it affects all countries of the world, regardless of their social system, and the sociopolitical aspect specific to present-day capitalism and caused primarily by the crisis of the neocolonial methods of

exploitation of the natural wealth of the oil-producing developing countries and the increased impact of the latter on the world liquid fuel market (1).

This most important methodological principle is not always propounded sufficiently consistently, in our view. Frequently at the time of characterization of the causes of the energy crisis the above-mentioned two groups of factors are enumerated "with difficulty," as it were. Yet their more precise delineation would make it possible, it would seem, not only to make certain adjustments to an explanation of the events of the 1970's but would also provide a key to an understanding of the sources of the present situation on the oil market.

The limited nature of world oil and gas reserves--the most economical and technically "convenient" energy carriers--and the rapid growth of their consumption in recent decades are related to the natural-economic prerequisites of the energy crisis. Altogether these factors are leading to the progressive depletion of the reserves of liquid and gas-generating hydrocarbons and the increased costs of their recovery in line with the transition to the use of deposits with inferior geological production conditions.

Soviet economic literature has emphasized repeatedly that the exacerbation of the global energy problem is by no means an indication of the absolute exhaustion of energy raw material. The natural limitations on natural resources, as, equally, the "resource shortages" which arise from time to time, are generally always relative: they reflect merely the limited possibilities of the production of raw material at a given level of the development of science, technology and the productive forces as a whole. Sooner or later the shortage of this natural resource or the other is always overcome by way of intermittent changes in equipment and technology, which make it possible to expand the resource base considerably and thereby restore--but at a higher level--the balance between the social need for raw material and its production.

In this sense the exacerbation of the global energy problem obviously reflects merely the growing unsuitability of an energy base based to a considerable extent on "traditional" hydrocarbons to the requirements of the modern productive forces, thereby predetermining the need for a transition to power engineering based on the use of more prevalent or renewable energy sources. It is a question of coal, heavy oil, bituminous shale and sandstone, hydropower, uranium and various nontraditional energy carriers, and in the future, the energy of thermonuclear synthesis.

At the same time the structural reorganization of world power engineering is a very prolonged process promising to stretch over several decades. And the reason for this is not only the complexity of the problems by which it is attended but also the presence in the Earth's interior of as yet considerable reserves of "conventional" hydrocarbon fuel. Thus proven recoverable reserves of oil in the nonsocialist world currently constitute approximately 85 billion tons, given an annual production level of 2-2.5 billion tons (2). We would add to this that an analysis of the dynamics of assayed reserves by no means reveals a trend toward a decline thereof. From 1938 through 1973, for example,

this indicator increased 20-fold, and in 1973-1985, after the start of the energy crisis, by a further 10 percent. In other words, the amount of oil recovered annually from the interior in the nonsocialist world is as yet more than compensated by the increase in reserves thanks to new discoveries. In this connection, contrary to the assertions which are sometimes encountered, nor is a reduction in the multiplicity of the oil reserves (their ratio to the annual production level) observed. In the period 1965-1973, on the eve of the crisis, for example, it varied within the limits of 32-33.5, but now, owing to the reduction in oil production included, it has risen to the record level of 42.

Although the rate of increase in assayed reserves has slowed noticeably now, the further possibilities here of the new deposits which have been discovered will not, apparently, quickly be exhausted. Thus a study conducted by a group of specialists led by M.S. Modelevskiy puts their magnitude at 460 billion tons, of which 285 billion tons may be recovered on the basis of available technology (3) (we would note for comparison that only 63 billion tons of liquid fuel have been recovered from the interior of the capitalist and developing countries in all preceding history). Nor can we disregard the prospects of a possible increase in the oil yield of the beds, which now constitutes 30 percent on average, of 10-20 percentage points thanks to the increasingly extensive application of progressive (secondary and tertiary) methods of extraction, which would in fact be the equivalent of a corresponding increase in recoverable reserves.

Thus the timeframe of the absolute exhaustion of oil resources is still very distant; according to many estimates, it will probably not come any earlier than the middle of the next century. All this convincingly refutes the alarmist forecasts which appeared in the West in the 1970's predicting for mankind the threat of a physical shortage of oil. As the Soviet economist N.P. Shmelev rightly observes in this connection, "the problem of a menacing energy starvation and exhaustion of resources even of liquid fuel has virtually been removed in recent years" (4).

What has been said does not mean, of course, that a further exponential growth of the consumption of oil like that observed up to the start of the 1970's is economically justified and possible for a lengthy period. First, this would be extravagant because liquid hydrocarbons are not only a most important type of fuel but also a valuable chemical raw material which is hard to replace. Second, it is clear that however great the potential oil reserves may be, they are by no means unlimited. Furthermore, it is generally recognized that the deposits which have yet to be discovered will not be comparable either in terms of size of the reserves or prime production costs with the Near East or Mexican deposits. Satisfaction of world demand for liquid hydrocarbons is even now demanding the growing involvement in economic use of less productive deposits which are deep-seated or situated in areas which are difficult to access (the polar region, the continental shelf); and there are few specialists who doubt that the trend toward a growth of the costs of oil production which came to light in the 1970's will continue (5).

May, however, the said trend be regarded as the cause of the crisis, dramatic phenomena in the share of energy raw material supply in the 1970's? Has the

increase in the cost of the production of oil been so abrupt and sudden as to have brought about a significant change in the price proportions in world trade in favor of liquid fuel?

The answer to these questions should be in the negative, I believe. First, the maximum level of the liquid fuel price reached by 1981 ($34 a barrel or $250 a ton) was approximately double the level of production costs at the worst of the deposits being developed. Second, in itself the sharp increase in average and maximum outlays in the 1970's-1980's was connected not so much with a shortage of relatively cheap resources as with the mothballing of oil production in the area of the best deposits in OPEC countries. The fact that the scale of the conservation in regions with low costs (primarily in the Near East and in North Africa) far exceeds the amount of production at the "costly" deposits of the North Sea, Alaska and Canada testifies to this.

Thus while by no means questioning the very trend toward a relative depletion of liquid fuel resources and the increased cost of their recovery it should be recognized that by the start of the past decade the degree of maturity of the natural-economic prerequisites of an energy crisis was still manifestly insufficient. In other words, had the crisis been brought about by this group of factors, it might probably have been in a state of latent development for a long time still and been manifested in a different, later, timeframe and in another form.

The weak link of the energy supply mechanism of the nonsocialist world was, it would seem, by no means the production sphere--oil production and its resource sufficiency--but the system of relations between the oil-producing developing countries on the one hand and the imperialist states and their oil monopolies on the other. Based on realities of the colonial period and historically outmoded by the start of the 1970's, this system collapsed as a result of the decisive anti-imperialist actions of the OPEC countries, which enabled the latter to determine the level of the production and exports of oil independently and also the price thereof. And inasmuch as by this time these countries had become the main suppliers of liquid fuel to the world market (in 1973 they catered for two-thirds of its production and nine-tenths of exports thereof in the nonsocialist world) they were able to raise the price thereof many times over. Thus, as the Soviet scholar A.I. Belchuk, observes, "the energy crisis was reflected not so much in the fact that current demand for oil and gas exceeded supply as in the sharp increase in the price of energy carriers..." (6).

It does not, as is obvious, follow from what has been said that the culprits of the energy crisis were the OPEC participants: it had been prepared by the entire preceding fundamentally irrational development of power engineering in the nonsocialist world. As is known, a considerable role in the onset of the crisis was also performed by the monopolies participating in the international oil cartel. The petroleum-exporting countries merely availed themselves of the evolved situation, which was auspicious for them, realizing their sovereign right to dispose of their own natural resources in a form by no means contrary to the "rules of behavior" of subjects of the world capitalist economy.

Nor can it be denied that although in increasing the oil price the OPEC countries were guided by their own interests, they objectively not only attracted the attention of the world community to the problem of the potential depletion of hydrocarbon resources but also lent most powerful impetus to a restructuring of world power engineering, with the necessity for which mankind would inevitably have been faced later.

II

The sharp increase in the oil price reflected profound qualitative changes in the system of pricing and rent relations on the liquid fuel market. The political-economic nature of these changes has not as yet enjoyed a synonymous interpretation among Marxist scholars. The biggest arguments, perhaps, are concentrated around the question of what the considerable difference between the highest individual prices of the production of oil and its market prices, which existed until recently, represents (7).

One group of scholars believes that the increase in the cost of oil was explained mainly by the monopoly factor--the increased impact on the pricing sphere on the part of OPEC, the detachment as a result of this of the oil price from its cost basis and the formation of monopoly rent (considering that it is a question of a fundamentally new type of monopoly--a monopoly of individual countries of sources of raw material, "state" or "political" in form).

According to another viewpoint, the increase in the oil price had a "stable economic and cost basis" (8), that is, it reflected the increase in the international cost of this commodity as a result of the deterioration in the natural conditions of recovery and--this idea should be emphasized particularly--such a specific factor as the threat of the exhaustion of liquid fuel. The transition to a new energy base, the supporters of this viewpoint indicate, should be stimulated by the corresponding increase in the price of oil, in which connection the international cost of this commodity at the present time is regulated not by production costs at the worst oilfields but the higher outlays on obtaining alternative energy sources. For this reason the detachment of the actual market price of oil from long-run marginal individual production costs represents not a monopoly but a kind of "interproduct" differential rent taking shape on the common fuel and power raw material market.

The absence of a common viewpoint on the political-economic nature of the oil price reflects, it would seem, the inadequate degree of study of the more general problem concerning the singularities of the pricing of nonrenewable natural resources.

Without dwelling on this problem in detail, we would note merely that in itself the nonrenewability of this natural resource or the other--inasmuch as the social need for practically any form of raw material may be satisfied with the aid of substitutes--has, we believe, not that fundamental an impact on pricing. As a relatively cheap resource is depleted, demand gradually switches

to more costly substitutes, which thereby begin to perform the role of kind of "worst areas," and their production costs (with an adjustment for a certain difference in consumer properties) become the controlling costs.

With regard for what has been said the very supposition that the exhaustion of liquid fuel reserves must at some stage lead to a growth of the international cost of this commodity to a level ensuring profitability of production of more expensive energy sources (specifically, synthetic liquid fuel) causes no argument. We cannot, however, agree that outlays on the production of alternative energy carriers have become the controlling costs for oil even now, when a physical shortage thereof is not yet being felt.

Of course, it is a perfectly correct assertion that with regard for the giant size of the tasks which have to be tackled in the process of a restructuring of world power engineering the economic conditions for such a restructuring--in the form of higher oil prices--should be created long before the depletion of hydrocarbon resources begins to take its toll. It would seem sufficiently obvious, however, that the ultimate regulator of price under the conditions of the market economy is the correlation between supply and demand. As long as in the long-term trend (without regard for short-term market fluctuations) demand corresponds to supply, "the price mechanism of the market will not in itself respond to a relative or even absolute depletion in raw material reserves" (9). In other words, even if mankind has an objective interest in beginning the development of costly, but abundantly available alternative resources, the capitalist market "does not recognize" their social utility until a shortage of cheaper raw material is revealed.

Of course, even given capitalist methods of management, the conditions for a restructuring of the resource base may be created ahead of time. As in the case of oil, for example, this could be a consequence of intervention in the pricing process of the monopoly seller (in this situation OPEC), which increases prices by way of limiting production. But although the effect of the monopoly factor here "anticipated," as it were, an increase in the cost of oil as a result of the depletion of reserves thereof, the increase in prices nonetheless reflected not cost changes but a severance of prices from cost, which was to "catch up" with them only subsequently. For this reason, we believe, we have to agree with the scholars who believe that liquid fuel prices following the increase in the 1970's were high in monopoly fashion (10).

Let us now look at another question. Can the international cost of production on the world capitalist oil market be identified with the highest individual costs of production (at the deposits of the North Sea, Alaska and Canada), which in certain instances amount to to $20 a barrel ($140 a ton)? In answering this question it should be considered that the proposition of Marxist political economy that the social (international) cost of the production of raw material commodities corresponds to the highest individual costs was formulated with reference to the conditions of free competition, when the social need for raw material produced under the worst conditions was constantly and automatically "verified" by the mechanism of supply and demand and average price and profit. Under the conditions of a monopolized market, on the other hand, this direct correspondence does not exist inasmuch as the

social demand for the product of the worst deposits may be explained not by a natural shortage of cheaper raw material but by the artificial limitation of its production in the area of the best and average deposits (in this case, in the OPEC countries). Consequently, the maximum outlays in this situation prove higher than the international cost of production.

A precise determination of the level of the latter is a very complex task. It would seem that this value does not exceed $5-8 per barrel ($35-56 per ton)--a level which would ensure the profitability of the production of oil at the overwhelming majority of the developed deposits in a quantity sufficient to satisfy demand. Thus until the recent reduction in the price of oil three-fourths of its overall level constituted monopoly income.

Such a significant detachment of the price of liquid fuel from its international cost was possible thanks to an entire set of singularities of both demand and supply on the world oil market. A most important factor on the part of supply is the above-mentioned high degree of monopolization of the market by the OPEC participants and the capacity of a number of them within very broad limits to control the volume of exports for the purpose of increasing or maintaining prices. On the part of demand we should distinguish factors predetermining its low price elasticity: the unique role of oil in the contemporary economy, the absence of sufficiently cheap substitutes for it which might replace it in all spheres of application and, as a whole, the considerable time lag of the fuel and power complex.

III

The particular properties of oil as a commodity undoubtedly highlight the liquid fuel market among other raw material markets. And it is not fortuitous that no association of emergent raw material-exporting states has succeeded, if only partially, in repeating the success of OPEC. At the same time even such an exceptionally favorable combination of factors was unable to halt the effect of objective laws of the capitalist market and prevent its retaliatory response to the increase in prices.

The sharp deterioration in the fuel and power situation has brought about a number of important changes in the power engineering and in the economy as a whole of the developed capitalist and developing countries. The majority of them has begun to implement a wide range of measures aimed at the increased efficiency of the use of energy, an increase in its production, a diversification of external sources of oil supply and a reduction on this basis in the dependence on OPEC.

Efforts in the sphere of energy savings and--to a certain extent--the structural reorganization of the economy of the developed capitalist countries which has begun, the preferential growth therein of the technically progressive (less energy-consuming) sectors and the assimilation of resource-saving technology led to a reduction in the energy-intensiveness of these countries' gross domestic product (GDP) in the period 1973-1984 of 19 percent. Given a growth of the GDP, in constant prices, of 29 percent, the consumption of primary energy carriers in the OECD states increased in the said period only 1.6 percent, whereas prior to 1973 these indicators had been growing at

an approximately identical pace (11). To a certain extent the effect of energy saving has been reflected in the developing countries also, although they have far fewer opportunities in this sphere. The average annual increase in energy consumption here fell from 7.3 percent in the period 1960-1973 to 4.8 percent in the period 1973-1984, and the incremental energy-intensiveness of the GDP, from 1.24 to 1 respectively. As a whole, for the nonsocialist world energy-saving measures combined with a twofold slowing of economic growth led to a reduction in the average annual rate of increase in energy consumption from 5.4 to 0.9 percent a year.

At the same time the growth of the oil price stimulated a process of its substitution by other energy sources, primarily coal and nuclear fuel in electric power engineering, industry and municipal services. Thus the construction of new heat and electric power plants using fuel oil was practically suspended completely in the developed capitalist countries, and part of the available capacity was switched to other types of fuel. As a result the proportion of oil in the aggregate energy consumption of the nonsocialist countries declined from 54.5 percent in 1973 to 44.65 percent in 1985, from 53.5 to 42.8 percent in the developed capitalist states included (12).

Under the conditions of the sharp slowing of the growth of overall energy consumption all this led initially to a stabilization of oil consumption in the 1970's and subsequently to a sharp decline therein at the start of the 1980's. In the period 1973-1985 as a whole liquid fuel consumption in the developed capitalist and developing countries declined by 170 million tons or 7.3 percent. Specific expenditure of oil per unit of GDP in the developed capitalist countries on the other hand declined 32 percent from 1973 through 1984 (13).

Finally, a further consequence of the sharp increase in the cost of oil was the almost 1.5-fold increase in its production in non-OPEC countries (from 807 million tons in 1973 to 1.213 billion tons in 1985). After 1973 the North Sea and Alaska became major new areas of oil production. Mexico increased the production and exports of liquid fuel considerably. New deposits were discovered in a number of developing countries, and some of them became net exporters of liquid fuel or, like India and Brazil, increased their self-sufficiency therein.

The result of all these changes was on the one hand the reduced dependence of the developed capitalist and some developing countries on oil imports. Thus the net imports of liquid fuel by the OECD countries declined from 1.313 billion tons in 1973 to 760 million tons in 1985, and its share of the total consumption of primary energy carriers, from 37.1 to 20.4 percent. On the other hand, OPEC's market positions weakened considerably. Whereas in 1973 its participants accounted for 65 percent of the production and 91 percent of the exports of oil in the nonsocialist world, in 1985 their share constituted merely 40 and 62 percent respectively. As far as the proportion of oil imported from the OPEC countries in the total consumption of primary energy carriers by the remaining countries of the nonsocialist world is concerned, it fell from 36.5 percent in 1973 to 17.8 percent in 1984 (14).

The structural changes in nonsocialist world power engineering together with the profound cyclical crisis of the capitalist economy in 1980-1982 contributed to a sharp change in the conditions of the oil market shortly after the second surge in the liquid fuel price, and it began to turn into a "buyer's market". The OPEC countries' almost twofold cut in production (from 1.561 billion tons in 1979 to 831 million tons in 1985) and the imposition of an oil production quota system failed to produce for them the desired results, the less so in that disagreements arose constantly between the participants in the organization over the size of the quotas, and some of them, owing to financial difficulties, began to retreat from the common price policy. As a result the organization of petroleum exporters twice--in March 1983 and in January 1985--lowered the official price of liquid fuel: first from $34 to $29 and then to $28 per barrel.

The considerable reduction in demand and the lowering of the price of oil caused a sharp deterioration in the financial position of the OPEC participants. Their revenue from liquid fuel exports fell from $279 billion in 1980 to $135 billion in 1985. Whereas in 1980 the surplus result of these countries' aggregate balance of payments amounted to $105 billion, in the period 1983-1985 the deficit therein constituted annually an average of $20 billion. As a result even the "wealthiest" participants in the organization ran into serious problems in realization of economic development plans and were forced to draw on resources from their giant foreign currency reserves, which had declined from $400 billion in 1982 to $200 billion in 1985 (15). Much more difficult was the position of the other petroleum-exporting countries, for the majority of which there was a sharp exacerbation of the foreign debt problem.

All these difficulties forced OPEC in December 1985 to announce that it was abandoning the role of a kind of "controller" of the market limiting the level of production for the purpose of maintaining prices while the other oil exporters were using their capacity almost fully. It was announced that henceforward the organization would defend not prices but a "fair" (that is, higher) share of the market. Simultaneously at the end of 1985 the countries incorporated in it increased the level of production and exports.

In a certain sense these measures were the equivalent of a proclamation if not of an open "price war," in any event, of a considerably more assertive competitive policy for the purpose of compelling the other oil exporters to share the burden of stabilizing the market. However, the new OPEC strategy did not produce the desired result. Moreover, the situation on the market slipped from the organization's control to a certain extent. Its participants' increase in production was not accompanied by a reduction in production in the other petroleum-exporting countries. The situation was made worse by the fact that the United States, endeavoring to weaken OPEC, threw onto the market part of its stratetgic liquid fuel reserve. Under the conditions of the deteriorating market the private monopolies also began to cut back on commodity stocks.

All this upset the highly fragile balance between supply and demand which had been maintained in recent years by OPEC efforts. By the start of April 1986, in just 4 months, prices on the spot market and also on the New York and

London stock exchanges had fallen almost twofold--to $10 per barrel ($73 per ton). And although following the August conference of OPEC, in the course of which agreement was reached on the temporary fixing of a relatively low overall "ceiling" of production, the oil price rose to $14-15, in real terms it is now only a little higher than on the eve of the first spurt in 1973.

IV

So in the mid-1980's the world capitalist oil market has been struck by the latest crisis--of overproduction this time. The Western press and certain Western economists are characterizing the current situation as the "collapse of OPEC" and the end of the "era of expensive energy". It is difficult, however, to agree with such an unequivocal assessment. And it is no accident that the majority of specialists are being very cautious in their forecasts.

Predicting the conditions of the oil market for any lengthy period of time is altogether an extremely complex task, as is known. The level of the oil price is determined by a multitude of factors--long-term and short-term, economic and political--each of which is in itself difficult to predict and, what is more, connected by a complex interdependence both with other factors and with the price. It is significant, therefore, that practically all forecast estimates in this sphere made in the 1970's and at the start of the 1980's were quickly refuted by the actual course of events.

Obviously, even now a forecast of the actual dynamics of the oil price would be extremely unreliable. Nonetheless, this cannot devalue attempts if only in the most general outline to determine the most likely "scenario" of the development of the situation in the future based on an analysis of the main factors influencing the conditions of the oil market.

Examining the prospects of the consumption of energy carriers in the nonsocialist world, we should cite a number of factors attesting a possible acceleration of the rate of growth thereof at the end of the present-start of the next decade.

Such a forecast is based, first, on the fact that in the period since 1973 the dynamics of energy consumption in the nonsocialist world have largely taken shape under the impact of the general economic stagnation caused by the interweaving of profound cyclical and structural crises. Yet a certain acceleration of economic growth is anticipated as of the latter half of the 1980's. Thus the majority of Western forecasts in the power engineering sphere proceeds from the fact that the increase in the GDP of the developed capitalist states up to the end of the century will constitute 2.5-3.5 percent, and in the developing countries, 4-5 percent per annum, which is somewhat higher than in the first half of the present decade. And, furthermore, the recent decline in the oil price could evidently additionally stimulate an acceleration of economic growth.

Second, as a number of Soviet studies observes (16), the decline in the energy-intensiveness of the GDP achieved by the developed capitalist countries has hitherto been connected mainly with a reduction in the "throwaway" overconsumption of energy by means of measures which have been more

organizational-economic than technological and have for this reason not required significant investments. Yet further progress in energy savings, it is believed, will inevitably require a restructuring of the entire energy-consuming machinery and the creation of fundamentally new energy-saving machines and techniques and thereby prove more difficult and costly.

Of course, it would be wrong to believe that the "surface" reserves of energy savings have already been fully exhausted. The experience of recent years shows that such reserves are more significant than was thought at the start of the 1980's even. And although the reduction in the oil price will probably weaken incentives to new investments in energy saving, nonetheless, this will hardly lead to an immediate growth of the energy-intensiveness of the GDP if only for the reason that the effect of the measures adopted earlier in this sphere will continue to be reflected. Nor should we underestimate the structural reorganization of the West's economy which has begun and the assimilation of new types of industry and technology--processes which have already predetermined, apparently, an irreversible change toward a new, energy-economical type of development.

Whence it may be assumed that the reduction in the energy-intensiveness of the GDP of the developed capitalist countries will continue. At the same time, however, the pace of this reduction will probably decelerate, and the "severance of the interconnection between economic growth and energy consumption," about which the Western press has written frequently in recent years, will once again be replaced by the closer correlation of these two indicators. Thus, according to the majority of foreign forecasts, the incremental energy-intensiveness of the GDP of the developed capitalist countries in the period up to the year 2000 will constitute 0.6-0.7, that is, will be lower than the precrisis level, but higher than in the period 1973-1985 (17).

Third,, it is obvious that a relatively high rate of growth of the consumption of energy carriers will be maintained in the developing countries, where a process of industrialization, which, even given a partial assimilation of the latest technology, will hardly cope without the preferential development of the base energy-consuming sectors of industry, has unfolded. As a result these countries' share of the aggregate energy consumption of the nonsocialist world could by the end of the century have risen to 25-30 percent compared with 22 percent in 1984 and 15 percent in 1973.

Thus we should expect in the foreseeable future a certain increase in the growth of the consumption of energy carriers, albeit not at such a pace as prior to the start of the crisis. According to the majority of Western estimates, in the nonsocialist world as a whole up to the year 2000 consumption of primary energy carriers will grow by an annual 2-2.5 percent (including 1.5-2 percent in the developed capitalist and more than 4 percent in the developing countries) and will amount by the end of the period to 9.5-10.5 billion tons of standard fuel (18). These indicators are 40-50 percent higher than the 1984 level, but considerably lower than the forecast estimates made on the eve and at the outset of the 1980's.

In what proportion will the aggregate demand be distributed between individual energy sources? I believe that the superseding of oil by other energy carriers which has begun is in the long term an irreversible process and could subsequently, in the event of some technological "breakthroughs," accelerate even. However, in the foreseeable future oil will in all probability retain the dominating role in the energy budget of the nonsocialist countries.

The most serious impediments en route to a rapid increase in the production of alternative sources of energy remain its high costs or the impossibility of their substitution for liquid fuel in all spheres of application. This applies primarily to various "exotic" energy carriers (solar and geothermal energy, biomass energy and so forth) and synthetic oil substitutes, the majority of the projects in the sphere of whose development had been wound down back at the start of the 1980's. As a result these sources will in aggregate by the end of the century be catering, apparently, for no more than 2-3 percent of the nonsocialist countries' overall energy need. A growth of the relative significance of water power and also (owing to the lack of adequate resources and costly transportation) of natural gas would seem unlikely.

The majority of experts agrees that in the next 15-20 years the substitution for oil--if it takes place at all--will be catered for, as before, mainly by an increase in the proportion of coal and nuclear power. At the same time a considerable expansion of the construction of coal-fired thermal electric power plants and nuclear power stations is also encoutnering a number of complex problems of an economic, technical and ecological nature. For these reasons, even before the present reduction in the oil price, specialists assumed that by the year 2000 the proportion of coal in the energy consumption of the nonsocialist world would grow to no more than 25-27 percent, and of nuclear power, to 10-12 percent (22 and 5 percent respectively in 1983). In this case the proportion of oil in the aggregate energy balance of the developed capitalist and developing countries by the year 2000 would constitute 35-40 percent.

Now, however, estimates have appeared according to which, given a stabilization of the oil price at a level below $20 a barrel, its displacement could come to a halt altogether, and at $10-12, a reverse process would begin in a number of areas of the substitution of oil for coal and natural gas in electric power engineering and municipal services (19) (thanks to the extensive introduction in the past decade of power plants geared to the use of various types of fuel, such a transition could be effected in a very short time). As a result the proportion of liquid fuel in the aggregate consumption of energy carriers in countries of the nonsocialist world could by the year 2000 not only not have declined but have increased even. In absolute terms the consumption of oil in the period up to the end of the century will, it would seem, depending on the price level, grow an average of 1-2 percent per year and amount to 2.5-3 billion tons a year compared with the 2.2 billion in 1984 (20).

As already mentioned, in the foreseeable future the resource sufficiency of world energy production will not limit the growth of liquid fuel requirements.

The question is: in what proportion will total oil production in the nonsocialist world be distributed among individual groups of producer-countries, primarily between the participants and nonparticipants in OPEC.

In the opinion of foreign specialists, despite the sharp fall in the price of oil, which has lowered the profitability of the development of a number of "expensive" deposits outside of OPEC, over a certain period the share of the participants in this organization in world oil production will remain at a relatively low level. Thus, according to available (highly approximate, incidentally) estimates, given a level of the world oil price of $10-12 per barrel, oil production in the North Sea in the short term will decline only 4-5 percent, and in the United States, 10-15 percent (21).

At the same time the sharp decrease in the cost of liquid fuel, which has already led to an appreciable reduction in geological prospecting for oil, could accelerate and intensify the decline in production in a number of OPEC competitors--the United States, Great Britain and Norway--earlier forecast for the start of the 1990's in connection with exhaustion of the deposits being worked currently. A certain growth in oil production will apparently continue in the developing countries which are not members of the organization of petroleum exporters, however, it will hardly compensate for the fall in production in the developed capitalist states.

All this indicates that in not that distant a timeframe the growth of world demand for oil will probably be satisfied mainly thanks to an increase in production in the OPEC countries, which account not only for the vast proportion of reserve production capacity but also, what is most important, three-fourths of the proven and a considerable proportion of the potential reserves of liquid fuel in the nonsocialist world. As a result, it is forecast, by the year 2000 these countries will be providing not less than half its oil production, which will help them once again acquire the temporarily lost levers of influence on the price.

Together with the above-mentioned objective factors the actual dynamics of the oil price are determined to a tremendous extent by the policy of the main forces operating on the world liquid fuel market: the organizations of petroleum exporters, other producer-states and Western importing countries and also the oil corporations.

As far as OPEC is concerned, of the internal problems facing it, the main one currently is the difference of positions on the question of the level of the overall "ceiling" of production and the allocation of individual quotas among the participants. It should be noted that disagreements within the organization on questions of price strategy and tactics have long roots. They were brought about by the considerable sociopolitical and economic heterogeneousness of its members, their dissimilar degree of oil reserves, different population strength and a number of other factors. As experience shows, the increase in centrifugal trends in OPEC and, as a consequence, the decreased effectiveness of its activity are manifested particularly prominently under the conditions of an inauspicious market, when some

participants in a difficult economic situation are increasing the level of production and exports to satisfy current financial needs, disregarding the danger of a further destabilization of the market.

A highly contradictory role in OPEC is being performed by Saudi Arabia--the biggest producer and exporter of oil in the nonsocialist world. On the one hand, with very extensive opportunities for controlling the level of production and exports of liquid fuel, it contributed to a considerable extent to the prevention of a steeper fall in prices in the period 1983-1985. It is sufficient to mention that by the summer of 1985 production in this country had fallen almost fivefold compared with the maximum level achieved in 1980. On the other hand the present fall in the oil price has been connected to a considerable extent with the actions of Saudi Arabia, which sharply increased production at the end of 1985 and forced the remaining OPEC participants to switch to a new market strategy. And these actions were brought about, furthermore, by far from just Riyadh's financial difficulties connected with the sharp reduction in exports but also a number of strategic considerations of the Saudi leadership.

The point is that Saudi Arabia with its huge oil reserves and relatively small population is interested not so much in maintaining a high price of the liquid fuel as holding back the process of its substitution by other energy carriers and thereby ensuring steady demand for its main export commodity for as long a period of time as possible. For this reason an oil price of approximately $30 per barrel stimulating processes which bring about a fall in consumption of the liquid fuel is obviously not to its benefit. Finally, this country's extensive economic and military-political relations with the West, which is also having a certain impact on its oil strategy, cannot be disregarded.

With regard for what has been said above it would seem that in the foreseeable future, under the conditions of the continued inauspicious situation, the OPEC participants will have difficulty pursuing a sufficiently concerted market policy. At the same time, as the results of this organization's conferences in August and October 1986 testify, such possibilities exist, nonetheless. In any event, there is no doubt that the preservation of OPEC corresponds to the interests of all the countries incorporated in it, and the disagreements between them are forcing them to sell a larger quantity of oil than before at "throwaway" prices, losing export proceeds here.

It can hardly be claimed also that the acute competition with OPEC and the decline in the liquid fuel price are profitable to the petroleum exporters which are not members of this organization. While its participants were cutting back on oil production to prevent a fall in prices, the remaining producers were intensively displacing them from the market, and individual contacts between them on questions of coordinating pricing policy in this period had no particular success. The new OPEC strategy will possibly change the attitude of the other petroleum exporters toward the problem of stabilization of the market. Inasmuch as the majority of them disposes of oil with higher production costs, having felt the full extent of the negative consequences of low prices, they may begin active cooperation with this

organization. In any event, Mexico, Egypt, Malaysia, Oman and Angola have already taken steps in this direction. The PRC and Norway have also expressed their consent to cooperating with OPEC.

Finally, nor should we, in our view, exaggerate the interest in a reduction in the price of oil on the part of the developed capitalist countries importing it, where there are influential groups of monopoly capital to which this is unprofitable. Thus the present situation on the oil market has already caused a sharp fall in the profits of the energy, primarily oil, corporations, and some of them are faced with the threat of bankruptcy. In addition, the sharp decline in the export revenue of such oil-producing countries as Mexico, Venezuela, Indonesia, Nigeria and Algeria, whose total foreign debt has reached $200 billion, is causing concern among the major Western banks which are their creditors.

Of course, in the short term the West's possible benefits from cheap oil outweigh the problems which arise in this connection. Thus, according to certain estimates, given a price of $15 a barrel, the developed capitalist countries would have been able in 1986 alone to save $100 billion on oil imports and increase the rate of economic growth by 1-1.5 percent. The fact that the fall in the liquid fuel price is having a lowering effect on the level of inflation is important too.

At the same time it needs to be considered that the reduction in the cost of oil, lowering the profitability of measures pertaining to the development of the national fuel and power complex and saving energy, is fraught in the future with the danger of a new increase in the West's dependence on imported liquid fuel supplies. It is not fortuitous, therefore, that many Western specialists (specifically, International Energy Agency specialists) are warning against euphoria in connection with the declining price of oil, noting that it could lead to a recurrent outbreak of the energy crisis.

Such forecasts are overdoing it, possibly, to a certain extent. However, an analysis of the basic factors determining supply and demand on the world oil market really leads to the conclusion that the long-term prospects could differ appreciably from the situation which has taken shape at the present time and which will probably continue in the immediate future.

By virtue of the "time-lag effect" of the structural changes in power engineering which occurred in the period of high liquid fuel prices, slack and unstable conditions will evidently continue on the oil market in the next few years and supply will exceed demand. Under the conditions of the "buyer's market" even a serious exacerbation of the situation in the Persian Gulf region would hardly lead to an appreciable surge in the oil price inasmuch as oil-producing countries in other regions would not be slow to avail themselves of this to increase exports. The possibilities for upwardly influencing prices by way of controlling exports of the OPEC countries, which are using only half their oil-producing capacity as it is, have been constricted to the utmost.

We can therefore agree with the opinion of many foreign specialists who consider most likely the scenario according to which in the immediate future

prices will fluctuate within the $15-20 per barrel range, given a certain coordination of the oil policy of the main exporting countries, both within the framework of OPEC (much will depend here primarily on the position of Saudi Arabia) and outside it. Given the lack of such coordination, prices could for a certain length of time be at the $10-15 level; and we cannot rule out, furthermore, at least theoretically, a possible short-term decline therein as far as $5-8 (22). This level represents, we believe, the lower limit of the oil price inasmuch as a further reduction therein would probably make unprofitable the development of the majority of deposits of the United States and the North Sea.

In the more distant future the combination of such factors as the forecast acceleration of economic growth in the nonsocialist world, a slowing of the process of reduction in the energy-intensiveness of the GDP and a stabilization of or reduction in oil production outside of the OPEC countries could lead to an improvement in the conditions on the oil market. Whether the real prices will reach the record levels of the start of the 1980's here it is now difficult to judge. In any event, the forecasts that by the end of the century the oil price would be in excess of $50 and even $100 per barrel (in 1980 prices), which were widespread just a few years ago, now appear manifestly fantastic.

When precisely might the next change in the energy situation in the nonsocialist world occur? It is obvious that its timeframe, as, equally, its scale, will be determined by the depth and duration of the fall in prices at the present time and also the market's reaction to this fall, which has yet to be manifested in full. More specifically, the lower the price in the immediate future, the more will programs in the sphere of energy saving and the development of alternative energy and "dear" oil sources be "frozen" and the sooner a new increase in prices may begin.

It is also important to determine what the new increase in the oil price might be like in terms of form--abrupt (as in the two previous instances) or gradual. There are evidently no grounds for supposing that the oil market has entered a period of smoother, more evolutionary development. This conclusion is confirmed by, apart from anything else, an analysis of certain structural changes on the liquid fuel market testifying that it has acquired a number of features of a free-competition market.

Whereas prior to the start of the 1980's international oil trade was conducted mainly on the basis of long-term contracts and intrafirm supplies and the proportion of spot and stock market trade amounted to 5-10 percent on average, by the end of 1985 it was in excess of 50 percent. Considering here that many oil-exporting countries are tying contract prices to the prices of the free market, it has to be seen that the latter has "outgrown" the role merely of indicator of the state of the oil market as a whole and become a most important part thereof.

The said trend is closely connected with the process of demonopolization of the oil market and the movement onto the scene as suppliers, purchasers or intermediaries in the trade in liquid fuel of a large number of new exporting countries, outsider companies, firms engaged in oil refining and

petrochemicals, brokerage traders and so forth, which have to a considerable extent displaced the two traditional forces which alternately dominated this market--the members of the international oil cartel and OPEC.

A consequence of this situation has been a further destabilization of the oil trade and an increase in the range of price fluctuations under the impact of a variety of short-term factors. Speculative stock market transactions, a change in the size of the stored liquid fuel reserves often connected with machinations of the oil companies or the "nervous" reaction of consumers endeavoring either to purchase the commodity for storage or to rid themselves of surpluses thereof and so forth--all this is leading to even a negligible increase or reduction in supplies causing an entirely inappropriate market reaction. The latter, in turn, is sending the wrong "signals" to investors, forcing them to rush from one extreme to another. They are beginning either to invest huge resources in the energy sectors, whose profitability prospects are still far from clear (as was the case with capital investments in the nontraditional energy carriers in the 1970's and on the frontier of the 1980's) or, on the other hand, abandoning projects whose implementation is objectively necessary even now. This, of course, is having an extremly unfavorable impact on the world economy as a whole and the development of the fuel and power economy in industry in particular.

Under current conditions paramount significance for an appreciable improvement in the global energy situation is attached to international cooperation. Essential conditions for its success are the establishment of control over the activity of the international oil corporations, limitation of market factors and an enhancement of the role of government regulation in determining the prospects of the development of power engineering. The determination of long-term agreements guaranteeing the stability of supplies of oil and the price thereof and taking into consideration the interests of both producer and consumer countries, including, of course, the socialist states, would be of positive significance.

As yet, however, such an "energy dialogue" seems highly unlikely. This is connected primarily with the unconstructive, selfish approach to this problem on the part of the imperialist states, primarily the United States, counting on the one hand on the free "play" of market forces, which is allegedly in itself capable of establishing a long-term balance between supply and demand, and, on the other, on economic and political pressure in relations with the oil-exporting developing countries. All this is reason to believe that the period of crisis upheavals on the world oil market is not yet passed.

FOOTNOTES

* The article is published by way of formulation of the issue.

1. See, inter alia: "The Energy Crisis in the Capitalist World," Moscow, 1975; "New Phenomena in the Power Engineering of the Capitalist World," Moscow, 1979; "Global Energy Problem," Moscow, 1985.

2. OIL AND GAS JOURNAL, 30 December 1985, pp 66-67; PETROLEUM ECONOMIST, January 1984, pp 25-26; January 1986, p 6.

3. M.S. Modelevskiy, G.S. Gurevich, Ye.M. Khartukov et al, "Oil and Gas Resources and Their Development Prospects," Moscow, 1983, pp 97, 153.

4. MEMO No 10, 1983, p 56.

5. For more detail see: Yu. Kurenkov, A. Konoplyanik, "Dynamics of Production Costs, Prices and Profitability in World Oil Industry" (MEMO No 2, 1985, pp 59-73).

6. MEMO No 12, 1981, p 106.

7. This question was raised in MEMO in the discussion "World Prices: Long-Term Trends and New Phenomena" (No 6, 1978, pp 83-104; No 7, 1978, pp 95-118) and in the articles of N.P. Shmelev (No 10, 1983, pp 52-62) and R.N. Andreasyan (No 1, 1984, pp 55-67).

8. See "Pricing on the World Capitalist Market," Moscow, 1982, p 49.

9. "World Prices: Long-Term Trends and New Phenomena" (MEMO No 6, 1978, p 9).

10. See, for example, V.Yu. Kukushkin, "Oil and Development: Algeria and Libya, Moscow, 1985, pp 37-47.

11. Calculated from "Energy Policies and Programmes of IEA Countries. 1984 Review," OECD/IEA, Paris, 1985, Table 6; MAIN ECONOMIC INDICATORS, OECD, June 1986, p 172; "BP Statistical Review of World Energy, 1984," London, 1985, p 28.

12. Calculated from "BP Statistical Review of World Energy, 1985," pp 8, 33.

13. Calculated from "Energy Policies and Programmes of the IEA Countries. 1984 Review," Table 8; "BP Statistical Yearbook of World Energy, 1985," pp 19, 31.

14. Calculated from "OECD Energy Balances 1982/1983," p 2; PETROLEUM ECONOMIST, January 1985, p 10; January 1986, p 6; "Annual Statistical Bulletin, 1983," OPEC, Vienna, 1984, p 27; WIRTSCHAFSTWOCHE, 13 September 1985; LLOYDS BANK REVIEW, April 1985, p 4.

15. THE SOUTH, January 1986, p 103.

16. See "Global Energy Problem," pp 135-137.

17. See, inter alia, the forecast of the Chevron oil corporation (OIL AND ENERGY TRENDS, July 1986, p 6).

18. Such, for example, are the forecasts of the American oil companies Texaco, Chevron and Conoco (PETROLEUM ECONOMIST, June 1985, p 191; August 1985, p 297; October 1985, p 337).

19. See, for example, US NEWS AND WORLD REPORT, 14 April 1986; EDITORIAL RESEARCH REPORTS, 4 April 1986, p 262.

20. These indicators correspond to the majority of recent foreign forecasts, particularly of the IEA and the Texaco, Chevron and Conoco oil companies. See PETROLEUM ECONOMIST, October 1985, p 373; December 1985, p 451; OIL AND ENERGY TRENDS, July 1986, p 6.

21. See, for example, LE MONDE, 6 February 1986; PETROLEUM ECONOMIST, April 1986, p 116.

22. See, for example, US NEWS AND WORLD REPORT, 14 April 1986; MIDDLE EAST ECONOMIC DIGEST, 31 March 1986, p 22.

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JAPANESE S&T POLICY SEEN CHANGING

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 40-51

[Article by V. Zaytsev: "Japan's S&T Policy: Change of Priorities"]

[Text] By the mid-1970's Japan had reached the level of S&T development of the leading capitalist countries, thereby achieving a most important strategic goal of the postwar period.

Stereotypes have taken shape in Western literature devoted to S&T progress in Japan according to which it is characterized to a greater extent by a capacity for copying or imitating foreign technology than inventing or implementing its own pioneering technical developments. It is often emphasized, for example, that less fundamental research compared with other highly developed capitalist states is performed here, but that skillful use is made of imported technology: Japanese firms, as a rule, assimilate progressive methods of production more rapidly than Western companies.

Such an assessment largely reflects the true state of affairs. However, asserting that Japan has only borrowed or copied foreign technology would be wrong. On the basis of constant and comprehensive analysis of world trends in science and technology the country's policy in this sphere has been opportunely modified, as a rule.

I

Japan's successes in the assimilation of foreign technology have been based primarily on its own S&T potential, quite high, albeit lagging behind the leading capitalist countries, and the sound professional training of personnel.

According to Japanese estimates, in the first years of the Meiji era (end of the 19th century) the gap in the assimilation of progressive equipment and technology between Japan and the West was more than 10 years. Immediately prior to WWII it had been reduced considerably, but the defeat once again threw Japan back virtually to the previous positions (1).

There are two fundamentally different approaches to eliminating the S&T lag: relying primarily on the assimilation of foreign experience or putting the emphasis on the development of national R&D. In the first case, all other things being equal, it is possible to advance rapidly and obtain tangible results in a comparatively short time. In the second, serious difficulties are possible inasmuch as pioneering S&T developments are inevitably attended by uncertainty, risk and setbacks.

The first direction predominated in Japan right up to the start of the 1980's. Since WWII it has more than any other capitalist country recognized and made use of the cost benefits of imported technology compared with its independent development. The American scholars (G. Abegglen) and (T. Hout) estimated that in the period of the particularly assertive purchasing of foreign licenses (1960's--first half of the 1970's) their cumulative cost amounted to $6 billion (more than 25,000 contracts) or little more than 10 percent of the United States' annual expenditure on R&D in this time (2). And this technology nurtured competitors, which are now squeezing firms of the United States and West Europe on world markets!

A number of factors reflecting the specifics of the country's approach to the solution of problems of S&T development has also contributed to the successful assimilation and rapid spread of advanced technology. Thus, as distinct from many other states, technology has never been regarded here as a sphere of human activity less significant and prestigious than science. Paramount significance is attached to technical disciplines and engineering work, directly in the shops included.

Japan made the principal means of raising the technical level of production the purchase of licenses and not technology imports connected with foreign investments in the country (as Canada is doing, for example). Priority was given the assimiltion of knowhow and processes and not the acquisition of the results of research materialized in producer goods. First, this was considerably cheaper, second, the preponderance among Japanese managers of specialists with engineering training ensured high receptivity to new technical ideas and management methods.

Very often an element of Japan's technology policy is underestimated--such as the presence of a well-adjusted infrastructure for the in-depth and comprehensive study of S&T trends overseas and dissemination of the corresponding information. The Japanese External Trade Organization (JETRO), which has more than 100 offices in the world's main commercial-industrial centers, is engaged in this, for example. The biggest all-purpose trading companies (sogo shosha) constantly keep an eye on events in the sphere of science and technology. Even small Japanese firms actively study the markets and technical innovations.

The Japanese Government (particularly prior to the removal in 1968 of restrictions on technology exchange with other countries) employed various levers of pressure on companies to ensure the transfer of technological knowhow from large enterprises to small and from "key" firms to subcontractors. In the 1970's the Ministry of International Trade and Industry (MITI) encouraged duplication of the purchase of foreign technology, that is,

imports of identical forms thereof by several firms for the purpose of equalizing the conditions of competition in particular sectors and preventing a temporary monopoly. As distinct from the ideas current in the West concerning Japan as a country of cartels and stiff government restrictions, competition between companies here is most likely more acute than in other industrially developed countries. It is so intensive that firms which lag behind in R&D are frequently faced with the threat of bankruptcy. The stiff competition is far stronger than government regulation and stimulates a rise in the technical level and productivity of labor.

Under the conditions of a shortage of financial resources and research personnel the "follow the leader" policy was effective. In the 1960's even Japan was inferior in terms of its S&T potential to the majority of developed capitalist states, but had by the start of the 1980's in fact passed the West European countries and was rapidly reducing the as yet appreciable lag behind the United States. Such conclusions are confirmed by various statistical indicators directly or indirectly characterizing individual aspects of the country's S&T development. But Japanese economists' attempts to determine synthetic indicators of S&T potential and make international comparisons on the basis thereof merit special attention. Two most important concepts are distinguished here. First, "technical level," upon determination of which it is of no significance whether national or imported equipment and technology is used. Second, "latent possibilities of S&T developments," that is, the capacity for independently developing new commodities and production processes or streamlining on a fundamental basis those which already exist (3).

The value of the corresponding indicators of the leading capitalist countries determined per this procedure is characterized as follows (United States = 100):

	Latter half of 1960's	Latter half of 1970's
Technical level"		
FRG	40.4	47.5
Britain	25	22.4
France	23.9	35.9
Japan	22.2	45.5
"Latent possibilities of S&T Developments"		
FRG	27	31.5
Britain	17.4	16.5
France	17.1	26.5
Japan	14.6	31.5

Source: "Keizai hakusho" (White Paper on the Economy), Tokyo, 1982, p 305; RESEARCH POLICY, October 1984, pp 291-292.

Although data characterizing Japan's S&T potential in the first half of the 1980's have yet to be published, the trends which have come to light allow us to assume that the country has passed the FRG in both indicators in question and has closed even further the gap with the United States.

II

A transitional period--from the postwar to a qualitatively new stage of S&T progress--has begun, we believe, in the 1980's.

In any economic system a principal factor determining the long-term dynamics of economic growth is the assimilation of innovations, that is, the materialization of knowledge of nature and society and their embodiment in the form of new equipment and technology, products and services and progressive forms and methods of the organization and management of social production.

An analysis of the dynamics of economic growth from the viewpoint of the development of equipment and technology makes necessary the delineation of two phases: the assimilation of fundamental discoveries and their subsequent partial refinements. Both phases are cyclically repeated, and each subsequent cycle, what is more, not only causes a revolution in the technical basis but also brings about profound changes in the social consciousness.

In recent years the bourgeois mass media and many scholars and politicians have been speaking of a "second industrial revolution" and about the allegedly widespread new stage of S&T progress. These assertions are not underpinned, in our view, by convincing arguments.

The postwar stage of S&T progress began in the 1940's, and its most productive period was the 1960's, when the average annual growth rate of the capitalist economy constituted 5.1 percent. Nuclear power, the jet engine, synthetic materials and fabrics, antibiotics, electronics and means of automation were actively assimilated within the framework of this stage.

In the 1970's the average rate of increase in the gross domestic product in the capitalist world declined to 3.7 percent and, according to available forecasts, will in the 1980's be at the 2-3-percent level. Its gradual decline, a number of leading Japanese specialists believes, is connected with the diminishing capacity of technical innovations of the postwar stage to stimulate economic growth (4).

Determination of the phase of technical progress (ebb or flow) is not a scholastic question but a problem on whose solution an evaluation of the general prospects of the development of capitalism for decades ahead depends. Of course, long fluctuations in the reproduction process and technical progress do not spare capitalism contradictions engendered by the traditional economic cycle and structural crises. On the contrary, in periods of a weakening of the stimulating influence of the latest stage of S&T progress the contradictions are particularly acute.

The innovations of the 1980's are not a revolution in theoretical ideas but rather the embodiment of settled old concepts in commodities which are far cheaper and more compact. The center of gravity of R&D currently has shifted to how to improve product specifications, create more accomplished production technology and lower costs. M. Moritani, the well-known Japanese specialist in problems of the S&T revolution, points out: "There is little doubt that the innovations occurring in the 1980's are not discoveries in scientific theory.

They are geared to a reduction in costs (cost innovation). R&D of such a type is extraordinarly well fitted to the traditional Japanese technology climate" (5).

Fundamental technical innovations, whose extensive practical application is anticipated in the 1990's and subsequent years, are based on theoretical ideas which are completely different from previously or, like biotechnology, on new technological systems. Fifth-generation computers, optical integrated circuits and optical computers, thermonuclear synthesis, gene engineering and so forth pertain here. Scientific research in these spheres is being performed actively even now, and the first examples of the practical application of their results are to hand. However, there is as yet very considerable uncertainty as to what practical outlet this research will have. Considering that the time interval from the first attempts at the practical assimilation of a fundamentally new idea to the extensive dissemination of commodities and techniques created on the basis thereof constitutes on average approximately 30 years, there is reason to suppose that the stimulating impact on economic growth of the said areas of R&D will be manifested in full most likely in the 21st century.

Thus currently Japan, like other developed capitalist states also, is merely entering a qualitatively new stage of S&T progress. It will exert a growing influence on the dynamics of the country's economic development. The work of K. Hasimoto and A. Minoue, fellows of the Japanese Economic Research Center, studies with the help of the production function the contribution of various factors of production to Japan's economic growth in the period of the 1960's-1980's and makes forecast estimates for the 1980's. The scholars' calculations show that in the 1960's an increase in the GNP of 53.9 percent was secured by the progress of science and technology, but in the 1970's their contribution declined to 40.6 percent. This corresponds to the theoretical ideas that the "peak" impact of the postwar stage of S&T progress on the dynamics of growth pertained to the 1960's and that this impact abated in the 1970's.

In the current decade Japan has the potential possibility of securing a 5-percent real average annual rate of increase in the GNP, and the contribution of science and technology, what is more, will constitute 56.1 percent. These estimates corroborate the findings of many scholars, who believe that an intensification of S&T progress will be the principal factor of Japan's economic growth (6).

III

Currently the governments of practically all capitalist states view to an increasingly large extent the development of science and technology as the main task of their industrial strategy. This has become a problem of national prestige also. The center of gravity of the economic rivalry between leading capitalist countries is shifting to this sphere. It is natural that S&T policy is becoming a principal component of state-monopoly regulation.

The preparation of major S&T breakthroughs dictates the need for an enhancement of the role of fundamental research. The private corporations will be forced to channel an increasing proportion of investments into R&D. According to the programs adopted for the 1980's and 1990's, Japan's

continued economic growth is to a growing extent to be based on its own R&D for the possibilities of the "absorption" of American and West European technology are largely exhausted and the efficiency of the use of foreign achievements is declining. For this reason Japan is confronted with a most important task--transition from the "following the leader" group to the leaders.

This goal was advanced most distinctly for the first time in the special MITI report "Foreign Trade and Industrial Policy for the 1980's," which formulates three fundamental tasks: overcoming raw material and energy limitations; creating a propitious "living environment"; increasing the responsibility of Japan as a "great economic power" for world development (7). S. Ishizaka, an author of the report and chief of the MITI Industrial Technology Agency, commented on the spirit of the document thus: "...the tasks which have been set will not be accomplished without S&T research. Ultimately we are aiming at the creation of a strong S&T power. And it will be an invariable official purpose" (8).

The profound changes to which the revision of industrial strategy and the approach to the structural reorganization of the economy will inevitably lead will bring about a change in the role of the state in the economy, Japan's positions in the international division of labor and the policy of the private corporations and their organizational structures and management methods. In the opinion of certain Western economists, Japan's changes in its industrial and S&T priorities are assuming the nature of the most significant transformation in its development since the time of WWII and, perhaps, since the Meiji era.

After the war, Japan had the opportunity in the process of "chasing the West" to take into consideration the experience of other countries and to respond opportunely and quite efficiently to emerging undesirable phenomena. Henceforward it will encounter a need for the solution of problems without precedent in world practice, particularly problems connected with the socioeconomic consequences of S&T progress. This will require, as a long-term forecast of the country's Economic Council observes, a stimulation of its own "creative resources" and a conversion from "imitator" into "innovator".

The government system of guidance and support for promising progressive sectors took shape in Japan back in the 1960's. At the start of the 1980's the government was the initiator of a number of large-scale national programs in the R&D sphere testifying to the transition toward the dynamic planning of S&T research in accordance with the level of industrial production which had been reached and the new possibilities of the assimilation of advanced technology.

At the start of 1986 there were 50 such programs with a deadline for the completion of the research in the period 1990-1995. These included the Sunshine program geared to the development of the technology of the use of new energy sources and Moonlight coordinating R&D in the sphere of energy saving; the fifth-generation computer, very large integrated circuits and supercomputer projects; and programs for the development of a new generation of robotics and flexible manufacturing systems. The MITI is fostering the "program for the Development of Base Technologies for the New Sectors," which

currently encompasses 12 research topics connected with the development of new materials, new fundamental devices for computers and biotechnology. Japan's Science and Technology Agency is implementing a program named "Flexible Research Systems for the Development of Creative Science and Technology". Its purpose is detecting shoots of revolutionary technology and attempting to stimulate discoveries and inventions which would initiate new directions of S&T progress. The following topics have been determined: "perfect" chips, multifunction polymers and special construction and superpure materials. An organization of research unique for Japan, which may be defined as a system of venture research groups created and financed by the government, has been employed.

Among all the programs adopted in recent years priority has been given developments paving the way toward technical innovations in such spheres as electronics and information science, new materials, new manufacturing systems (flexible systems, machining centers and so forth), nontraditional energy sources, the aerospace complex and biotechnology. It is in these areas, it is expected, that the results of research will open, the way to the rapid development of new sectors and industries. In accordance with Japanese forecasts, the volume of their output will by 1990 have amounted to 37 trillion yen or approximately 10 percent of the GNP (5.6 percent of GNP in 1984), and by the year 2000, some 111 trillion yen or 21 percent of GNP, including here electronics and information science, which will account for 94 trillion yen, new materials, 4-8 million, nontraditional energy sources, 5 trillion, new manufacturing systems, 4 trillion, aerospace hardware facilities, 2 trillion and biotechnology, 0.4-2 trillion yen (9). According to MITI data, to realize the strategic goals in the sphere of R&D Japan must by the start of the 21st century have tackled 365 important S&T tasks.

It would seem that in the foreseeable future the role of the state in stimulating technical progress will increase in all areas. The real strength of Japan's government authorities consists of an ability to foresee trends sufficiently accurately, prompt the private sector to action in the channel of these trends, determine a system of priorities of S&T development, reduce the degree of financial risk when assimilating innovations and stimulate the S&T cooperation of the major corporations, which does not do away with the acute competition between them but unites efforts in the development of the key directions of S&T progress. When things begin to move, the private sector can count on complete autonomy. The diversity of forms of stimulation of its innovation assertiveness has contributed, inter alia, to ensuring that throughout the postwar period the shortest timeframe of thess has contributed, int throughout the postwar period the shortest timeframe of th here.

Naturally, all this requires the corresponding capital investments. In terms of the amount of spending (and numbers of persons employed) in the sphere of R&D Japan is firmly in second place behind the United States in the capitalist world and is unequaled in terms of rate of increase therein. Japan's share of the aggregate expenditure of the OECD countries on R&D rose from 10 percent in 1969 to 17 percent at the start of the 1980's (United States 46 percent, EC 29

percent). The ratio of expenditure on R&D of the United States and Japan, which in 1967 constituted 14:1, has been reduced currently to approximately 10:3 (10).

The strategic orientation toward a growth of S&T potential is manifested in the intention of the country's ruling circles to raise total spending on R&D to 3 percent of GNP by 1990. And the state's share of the financing thereof, it is contemplated, will increase, what is more, despite the strict practice of economies in budget resources, to 50 percent (compared with approximately 25 percent in the first half of the 1980's).

IV

The scale of the efforts being made by Japan testifies, in our view, that the front of scientific R&D is no longer, as before, a spontaneous generator of structural changes in the economy. Objective contours of the priority areas of S&T development up to the end of the 20th century and beyond have taken shape, the main strategic tasks have been determined and medium- and long-term specific programs of an acceleration of S&T progress and systems of stimulating the introduction of its results have been elaborated.

However, the change in the model of S&T development which took shape in the postwar period is creating big difficulties for Japan. The stage has now been reached where it is imprudent and impossible even to continue to give priority only to "money-making technology," that is, commercially profitable technology, although the country has been preeminently successful in the use thereof for capturing markets and increasing international competitiveness.

This is explained by a number of factors. First, the stream of licenses to the results of important S&T developments on the basis of which improvements could be made is diminishing. Western companies are increasingly less inclined to sell Japan such licenses. Second, it has for a long time developed only "safe" technology, that is, officially approved and guaranteeing success. Accordingly, less attention has been paid to fundamental research, which is distinguished by a high degree of risk and is conducted over a long period of time, and the main efforts have been concentrated on the end results of this research. Being sufficiently efficient, the Japanese approach has thus practically precluded any major scientific discoveries (11). The disregard for fundamental research has led to Japanese companies frequently lacking technology worthy of Western firms' attention. The latter, on the other hand, have been more interested not in the sale of their S&T knowhow but in the establishment of cooperation based on license exchange. Third, the one-sided policy of stimulating applied research has lowered the status of the "fundamentalists" and lessened their possibilities within the framework of corporations' research subdivisions.

Such realities of the "technological climate" engendered a "sense of crisis," which embraced Japanese businessmen, scientists and technical specialists in the 1970's. Many of them continue to believe that the country is unable to overtake the United States in advanced technology and that in fact it lags behind considerably even where at first sight it would appear to be the leader. It is not legitimate putting Japan among the leading countries

technologically, the economic commentator K. Ushikashi claims. The data on trends of the national production of nuclear reactors and aircraft are misleading. Japanese automobiles dominate the U.S. market only in the class of compact models (with an engine capacity of no more than 1,600 cubic cm). Even in the sphere of semiconductors, with the exception of the mass prodcution of standard types thereof, the United States has the overwhelming advantage (12).

Truly, the Japanese-American "semiconductor war" has many fronts. A realistic idea of the balance of forces cannot be gained if attention is paid merely to the rivalry for superiority in the volume of production and increased degree of integration of the IC componentry. Other important aspects are the development of new materials for the IC's and the perfection of equipment for their production. Japan is inferior to the United States here. For example, for many Japanese producers of semiconductors the electronic equipment used in the process of the creation of IC's is imported practically entirely from the United States.

Japan lags behind considerably in the sphere of computer software. If we compare the 10 biggest suppliers of software of the two countries, ranking them in terms of the number of consumers of the product, in Japan the leading supplier furnishes 100 companies with his programs, but in the United States, 5,950 companies, including 252 Japanese. In the United States the proportion of program packages in total software constitutes 30 percent, and 15 percent of software is developed automatically. The Japanese indicator in both instances is only 5 percent (13).

One further sphere in which the Americans retain very strong positions is the processing of stored data arrays and information services. This factor performs a very important role since it is precisely good software which will to an increasing extent determine the efficiency of the use of the entire production machinery. Currently the United States accounts for 75 percent of the data banks available in the capitalist world. Inasmuch as Japan (as West Europe also) lacks equivalent data banks, its scientists, engineers and businessmen will for a long time to come draw knowhow from American sources, which will increase financial, technical (and political) dependence on the United States and is influencing the commercial and production strategy of the consumers of the information.

Let us take, for example, aerospace industry. The contemporary Japanese satellite is made up of approximately 40,000 components. Certain intricate units and parts are supplied by American companies on condition that their inner workings and functioning priniciple not be investigated by Japanese specialists.

As a whole, it may be asserted that in many spheres (production of steel, automobiles, electronics) the high competitiveness of Japanese commodities is based to a considerable extent on the technological experience of mass production and product quality control and is the result of the superiority not of the technology but of Japanese manpower.

There is no doubt that Japan's present S&T level dictates the need for continued reliance on advanced foreign, primarily American, technology in a wide range of spheres.

Nonetheless, the trend toward reduced dependence on imported technology is indisputable and, evidently, will strengthen. Specialists from Japan's Ministry of Finance valued the accumulated amounts of S&T knowhow in sectors of manufacturing industry. It turned out that the degree of dependence on imported technology (ratio of cumulative expenditure on the purchase of licenses to the total volume of investments in R&D) reached its high point in 1970 (17 percent), then up to 1975 was at the 16-percent level, after which it declined to 11 percent (14). Thus national technology is gradually superseding foreign technology. This process is accelerating as Japan's positions strengthen in the sphere of new developments.

At the microlevel a most pronounced trend is the rapid growth of the relative significance of independent R&D. Whereas in 1965 the ratio of in-house developments to borrowed technology in the expenditure of the private corporations on R&D constituted 4:1, by 1982 it had increased to 14:1. The Japanese scholar H. Odagiri concludes that for the country's major corporations operating in manufacturing industry expenditure on in-house R&D since the end of the 1970's has been more efficient from the viewpoint of the growth of sales than the purchase of licenses. Undoubtedly, the basis of such changes is the equalization of the technological level of Japanese companies, engineering primarily, with leading Western firms.

We should emphasize particularly an essential new feature in the research activity of the majority of Japanese companies--their spending on R&D is exceeding the amounts of investment in machinery and equipment. A strengthening trend is also the increased attention to unprofitable fundamental research. Of course, it is mainly the big firms which can permit themselves this. According to data for the end of March 1983, in industry 187 companies, each with capital of 10 billion and more yen (1.3 percent of the total number oif corporations) accounted for 58 percent of all expenditure on R&D and 63.6 percent on fundamental research. Some 763 companies with capital of more than 1 billion yen accounted for 82 and 87 percent respectively (15).

In terms of the absolute amount of expenditure on fundamental research Japan outpaces the FRG, France and Britain. At the same time in the period 1967-1984 the actual growth thereof constituted only 37 percent (total expenditure in the sphere of R&D, 160 percent). The analogous indicator for the FRG was 86 percent, for the United States, 21 percent.

According to calculations of the U.S. National Science Foundation, the government's share in the sum total of spending on fundamental research constitutes approximately 70 percent in the United States, 80 in the FRG and Britain, 90 percent in France, but only approximately 50 percent in Japan. Such a considerable lag is creating big difficulties for it. The capitalist economy does not in principle provide for the optimum, from the viewpoint of all of society, financing of R&D by the private sector. Fundamental research

is by its very nature a high-risk undertaking. And it is primarily private corporations which take the risk for ultimately, as a rule, it is they which translate "the language of inventions into the language of investments". Numerous Western works devoted to the strategy of the distribution of resources within the framework of an individual firm show that, given the absence of government intervention, private companies are inclined to "underinvest" resources in fundamental research compared with social requirements.

The vast proportion of fundamental research in Japan, as in other developed capitalist countries, is performed by universities and government laboratories. However, in the United States, for example, the universities and laboratories perform much research of a military nature, which contributes to a strengthening of their ties to industrial companies, particularly arms producers. In Japan this occurs to a considerably lesser extent. Indeed, as a whole, the connection of the country's universities with private firms along the fulfillment of orders for fundamental research lines is as yet at a comparatively low level.

This situation no longer satisfies the Japanese corporations. N. Makino, vice president of the Mitsubishi Group Comprehensive Research Institute, believes the main reason for Japan's lag in the sphere of fundamental research to be the insufficient assertiveness of the university professors. The academic climate here is such, he asserts, that, having once become a member of the university council, the scholar is free for the rest of his life of worry about his daily bread, regardless of his capabilities and achievements.

A special survey of the 763 biggest private companies reflected the high degree of concern at the lag in the sphere of "creative science". As it turned out, only 3.3 percent of companies believes that the scale of fundamental research in them is adequate, 52.8 percent declared its inadequacy and 43.8 percent reported that it is virtually not performed. Among those who believe their level of fundamental research to be inadequate, 52.6 percent see the most practicable outlet from the current situation in increased cooperation with outside organizations (national universities, government research institutes and foreign universities and research centers), and 24.6 percent, in an expansion of their own fundamental research (16). The policy of the accelerated development of the latter may be judged, in particular, by the increase in the number of in-house research establishments.

For example, the Hitachi electrical engineering company, which spends most on R&D in Japan, has seven research institutes with a total number of employees of approximately 10,000. However, in 1984, in view of the tremendous number of major problems requiring solution, it opened a new research center specially for development of the fundamental sciences. Similar institutes in the electronics sphere have been set up also by the Nihon Electric (1982), Toshiba (1984), Matsushita Electric (1985) and Sanyo Electric (1985) firms. This trend is becoming characteristic of other sectors of the economy also.

Various forms of S&T cooperation with other countries, primarily the United States, are producing certain results. The financing of R&D overseas is expanding considerably. The traditional Mecca of American advanced technology

for Japan is MIT. In organizing joint research with American scientists and engineers the Japanese corporations are hoping to bolster competitiveness based on a combination of their own production technology and American fundamental research. This "cross pollination" is also essential to the Japanese firms for familiarizing young scientists with an approach to science which is uncharacteristic for them, which is sharply enhancing their professional standard.

The point being that a singularity of the national mentality is the considerable dependence of the average Japanese on the group and identification of himself with this organiztion or the other. This performed a positive role in the period of elimination of the S&T and general economic lag and acceptance of ready-made models of equipment and technology, but is proving an impediment at the new stage, when the need for more vigorous original scientific and technical studies is arising. R. Ezaki, winner of the Nobel Prize for physics, believes that too many Japanese scientists prefer the beaten path in scientific research and never challenge the unknown.

For many years research scientists in private and government research establishments were under exceptionally strong pressure to speed up developments of new products (as counterpoise to the discoveries in the field of theory). This was reflected negatively in material incentives also, which could have contributed to the real development of fundamental research. The work of the people connected with the latter cannot be evaluated by current economic indicators, and Japanese managers frequently demonstrate an incapacity for imparting due status to workmen whose activity does not produce immediate tangible results.

Government assistance in this field has its limits also. The chronic budget deficit is limiting opportunities for conducting fundamental research along a broad front. The measures implemented by the Japanese Government within the administrative-financial reform framework have affected the R&D sphere also. In particular, a law was enacted in 1984 on regulation of the main directions of scientific research, on the basis of which government subsidies would be granted mainly for the biggest and riskiest projects. This largely forced step could complicate Japan's reorientation toward the development of its own "creative S&T potential".

Summing up the most general trends of Japan's present-day S&T development, it has to be noted that the orientation toward its conversion into a strong S&T power is an important component of the long-term economic strategy of the country's ruling circles. The facts testify that in the wake of the economic "challenge" Japan is actively preparing for the technology "challenge," relying on increased cooperation in the sphere of R&D of the state and the private sector. It is to here that the center of gravity of state regulation is shifting.

Historical experience shows that Japan can do away with a lag in this sphere or the other relatively quickly. Borrowing and upgrading foreign technology, it has not only reached an advanced technical level in the majority of sectors of the economy but has been able to create strong process stock on the world markets of "technology of the future". The rapid growth of S&T potential has

put it among the leaders in certain important areas of technical progress. This is a most important factor of the continued increase in the country's international competitiveness.

FOOTNOTES

1. See EKONOMISUTO, 10 April 1981, pp 66-70.

2. See FOREIGN AFFAIRS, Fall 1978, p 160.

3. The "technical level" indicator is calculated on the basis of such components as the number of patents registered within the country and abroad, the volume of foreign technology trade, the value of the exports of advanced products and the amount of value added in manufacturing industry. The "latent potential of R&D developments" indicator aggregates three ingredients: "technical level"; resource support for R&D (aggregate spending on R&D, number of research scientists); results of R&D.

4. N. Namiki, "Technical Renewal and the Industrial Society," Tokyo, 1983, p 20; H. Takeuchi, "Thoughts on the Future of the Economy," Tokyo, 1980, p 224.

5. M. Moritani, "Japan's Advanced Equipment and Technology," Tokyo, 1982, p 52.

6. See "The Japanese Economy's Potential for Growth in the 1980's," Tokyo, 1982. Japanese economists used the version of the production function proposed by the well-known American scientist E. Denison. They broke down the actual rate of increase in GNP into the aggregate contribution of production factors (labor costs and capital costs) and the "residue," that is, the proportional rate of increase remaining following the deduction of the contribution of labor and capital. The "residue" includes every conceivable organizational restructuring, improvement of the management system and marketing, the increased efficiency of foreign economic relations and so forth. It is not legitimate, therefore, identifying the entire "residue" or, as the Japanese specialists do, the overwhelming proportion thereof with the impact of S&T progress. Nonetheless, the estimates arrived at by K. Hasimoto and A. Minoue make it possible to a certain extent to judge, albeit approximately, the role of S&T progress in economic development. Special studies show that S&T progress has the leading role among the factors forming the "residue".

7. "Foreign Trade and Industrial Policy for the 1980's," Tokyo, 1980, pp 4-5.

8. "Challenge to the New and Unknown. Forward Edge of R&D in the Sphere of the Latest Technology," Tokyo, 1982, p 12.

9. "Development of Next-Generation Production Equipment and Prospects of Japanese Machinery Exports," Tokyo, 1985, p 3.

10. KEIZAY HAKUSHO, 1984, p 140.

11. Of the 359 Nobel Prize winners in the sphere of the natural sciences on whom this award was bestowed in the period 1901-1983, only 4 (3 in physics, 1 in chemistry) have been Japanese.

12. See JAPAN ECHO, Special Issue, 1983, p 4.

13. "International Comparisons of Japan's Industrial Equipment and Technology," Tokyo, 1982, pp 15, 17.

14. THE ORIENTAL ECONOMIST, October 1984, p 23.

15. "White Paper on Science and Technology," Tokyo, 1984, pp 48-51.

16. Ibid., 1985, p 54.

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SURVEY OF INTERNATIONAL EVENTS SEP-NOV 1986

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 78-96

[V. Amirov, A. Kokeyev, V. Skorokhodov, A. Umnov, B. Kheyfets international roundup: "Current Problems of World Politics"]

[Text] There is today no more important, burning task than deliverance of mankind from the nuclear threat. Reykjavik showed that this goal is practically attainable, given good will. But it also threw light on the difficulties in the way of a nuclear-free world. The stumbling block was Washington's incapacity for recognizing the realities of the nuclear-space age and its chase of the specter of military-technology superiority ensuing from this.

Nonetheless, the Soviet Union is not withdrawing the proposals put forward in Reykjavik. "...We," M.S. Gorbachev emphasized, speaking in Delhi, "have sufficient political will, perseverance and patience to continue to seek profound, radical accords pertaining to a reduction in and the elimination of nuclear weapons."

The USSR is not alone in the struggle to remove the unprecedented threat looming over mankind. Hundreds of millions of people on all continents have joined in this struggle. Last fall the peace-loving forces of the planet acquired a wide-ranging and all-purpose action program. This was the Delhi Declaration signed by M.S. Gorbachev and R. Gandhi during the visit of the CPSU Central Committee general secretary to India. On behalf of the more than 1 billion persons living in the two states their leaders called on the international community "to change the current world situation and build a world free of nuclear weapons and free of violence and hatred, fear and suspicion."

1. The Difficult Path to a Nuclear-Free World

In the general opinion of the world press and statesmen and politicians of many countries the Soviet-American top-level meeting in Reykjavik was the main political event of the past year. The historic significance of this meeting, which was held at the initiative of the USSR, is determined primarily by the

nature of the issues discussed there and the accords arrived at. The central place at the negotiations, thanks to the efforts of our country, was occupied by problems of a halt to the arms race and a reduction in and subsequently the complete elimination of nuclear weapons.

The Soviet Union submitted for its partner's examination a package of interconnected, balanced proposals providing, first, for a 50-percent reduction in each component of the strategic arms triad in the next 5 years and their complete destruction in the following 5 years; second, the elimination of all intermediate-range missiles in Europe and, third, a strengthening of the ABM Treaty. Furthermore, the USSR proposed immediately following completion of the meeting a start on negotiations to formulate a full-scale treaty on the complete and conclusive banning of nuclear explosions.

Aspiring to the achievement of historic accords, our country consented to concessions which, as the U.S. representatives at the negotiations acknowledged, came as a complete surprise to them.

In the strategic arms sphere the USSR withdrew its previous demand concerning inclusion in the strategic equation of the American intermediate-range missiles deployed in Europe and also the forward-based missiles. As is known, both are capable of reaching Soviet territory. Further, the USSR consented not to count in the overall balance of nuclear forces in Europe the corresponding arms of Britain and France. Displaying flexibility and a broad approach, our country also accommodated the West in respect of intermediate-range missiles deployed in the Asian part of the USSR. The essence of the Soviet proposal on this question is a reduction in the number of warheads on these missiles to 100 (that is, several times over) and subsequently negotiations concerning the complete elimination of all missiles of this class. Finally, the USSR expressed a readiness to freeze the numbers of missiles with a range of up to 1,000 km and begin negotiations on them immediately.

In agreeing to such significant concessions the Soviet Union was guided by a clear vision of the set goal--achieving real nuclear disarmament. If the situation is viewed from this angle--and the Soviet side's approach was precisely such--in Reykjavik the concessions in what was particular and secondary ensured the possibility of progress in what was principal and fundamental: they opened the way to large-scale agreements which would have made it possible in a comparatively short time to deliver mankind from the nuclear threat.

Why was such a possibility not realized? The responsibility for this lies fully with the American side. At the very last moment the U.S. delegation thwarted the projected accords, endeavoring at all costs to preserve inviolable the supermilitarist "star wars" program. And on this question also, what is more, the USSR displayed the maximum flexibility. Considering the emphatic attachment of the U.S. Administration and R. Reagan personally to the "strategic defense initiative," the Soviet Union did not insist on the suspension of all research being conducted within the SDI framework. Research and testing which did not go beyond the laboratory would be permitted. Testing of components of an antimissile system in space which are being developed

would be banned, as provided for by the current ABM Treaty. However, Washington, obsessed with the plans for the militarization of outer space, did not accept this idea. "Our partners lacked breadth of approach, an understanding of the unique nature of the moment and, ultimately, the courage, responsibility and political resolve so necessary in the solution of the most important burning world problems," M.S. Gorbachev observed, describing the conduct of the American side at the negotiations.

This assessment is shared by many politicians, military specialists and observers from the most diverse countries, including the United States. This is what E. Markey, chairman of a House subcommittee, writes in an article in the CHRISTIAN SCIENCE MONITOR: "Even with the most sophisticated propaganda efforts it is impossible to refute the fact that in Reykjavik President Reagan was offered an opportunity to create a lasting legacy, having concluded a long-term arms control treaty. Essentially he had a far more auspicious opportunity for this than any other president in the nuclear age. Reagan was offered a most profitable deal which the Russians have ever offered an American president since they sold us Alaska. All that was required of the President in exchange was that he promise that the United States would continue to comply strictly with the 1972 Treaty limiting ABM systems. But President Reagan remained unbending and was wrong."

Having foiled the achievement of historic accords, the U.S. Administration attempted in characteristic manner to shift the blame for the unsuccessful outcome of the meeting onto its negotiating partners. An unprecedented campaign of disinformation and juggling of the facts intended to conceal from the American and world public the truth about what had happened at the Khevdi Villa was unleashed across the Atlantic. Washington hastened first of all to attribute to itself the credit for the advancement of far-reaching proposals in the nuclear disarmament sphere. Then came completely unexpected twists. Manifestly at variance not only with the truth but also with his own statements made immediately following the meeting, the head of the White House and other ranking members of the administration began to assert that in Reykjavik the United States had agreed to the destruction within the second 5-year term merely of ballistic missiles (of which the USSR has more) and not all components of the strategic triad, including bombers. It is not difficult to understand the meaning of this maneuver if it is borne in mind that in terms of the number of strategic bombers the United States has an almost fourfold advantage over the USSR.

The White House's attempts to justify its intractability on the question of the SDI also appear just as tendentious and far from the truth. These include accusations that the Soviet Union is unwilling to consider the United States' "legitimate right" "to defense," demagogic arguments as regards an "insurance policy" and assertions that it was the SDI which forced the USSR to come to the negotiating table and consent to the "American proposals".

The Washington administration's conduct immediately following the summit was yet further confirmation of the extent to which militarist circles and the military-industrial complex of the United States as a whole were intimidated by the prospect of nuclear disarmament which was revealed. It is indicative that the accords achieved in Reykjavik were even in their Washington

interpretation criticized on the part of influential circles connected with the military-industrial complex. It was under the pressure of these circles that feverish efforts were made to revise the results of the meeting in the Icelandic capital, more, to pile up new obstacles in the way of the development of Soviet-American relations to ensure that the process begun in Reykjavik finally misfire.

It is in this plane that we should view the provocative action undertaken by Washington a few days after the Reykjavik meeting pertaining to the expulsion from the United States of 55 workers of Soviet establishments. This step was grounds for the London newspaper THE GUARDIAN's assumption that "to determine the day's policy the U.S. National Security Council starts the day with a game of roulette." As is known, the Soviet Union adopted retaliatory measures, which the world greeted with understanding and approval.

The irresponsible actions of the U.S. Administration have confronted the international community with the inevitable and legitimate question of the predictability of its policy, as also of whether it is ready to seek the solution of problems of vital importance for mankind or whether it intends moving toward a further exacerbation thereof.

On the other hand, many political observers and the mass media of various countries are calling attention to the consistency and constructiveness of the position of the USSR, which was specifically expressed in the speeches of M.S. Gorbachev at the press conference in Reykjavik and also on Soviet television. They made a big impression on the world community by their depth of analysis of the course of the negotiations and the situation which has taken shape following the meeting in the Icelandic capital and their assessment of existing prospects. The general secretary of the CPSU Central Committee emphasized that despite the United States' attempts to revise the accords arrived at in Reykjavik, the USSR would not withdraw the initiatives advanced at the meeting: "All that has been said in justification and development of them holds good."

On 7 November the USSR submitted new proposals at the Soviet-American negotiations in Geneva on nuclear and space-based arms based on the Reykjavik accords and the position which had been formulated by M.S. Gorbachev. Our country had a right here to look for reciprocal constructive steps on the part of the United States, which had declared officially that further disarmament negotiations, the Geneva negotiations included, "will build on the progress made in Reykjavik." But such declarations were not underpinned by practical deeds--rather the contrary, the actions of the U.S. delegation in Geneva, as also the results of the negotiations of E.A. Shevardnadze, member of the CPSU Central Committee Politburo and USSR foreign minister, and U.S. Secretary of State G. Shultz on 5-6 November in Vienna, testifying that Washington is endeavoring to return to positions essentially canceling out all that at which the two sides had arrived in Reykjavik.

At the end of November the U.S. Administration took one further step in this direction. It is a question of Washington's decision to add to its effective combat strength the 131st B-52 bomber fitted for long-range cruise missiles without having dismantled by way of compensation here some equivalent nuclear

weapon delivery vehicle. In taking this step the United States exceeded the quantitative levels of strategic arms determined by the SALT II Treaty. Thus accords which enshrined military parity between the USSR and the United States and which had for a number of years limited the nuclear arms race in its central direction--in the sphere of strategic offensive arms--were trampled.

Considering that the administration is simultaneously aiming at undermining the ABM Treaty also, Washington's actions cannot be regarded other than as aimed at the destruction of the entire existing structure of the process of negotiations in the SALT sphere. The perfectly definite impression is being created that Washington is thereby hastening to link by mutual responsibility the arms race and future administrations.

The moment chosen for the decision to inflict the final blow on the SALT II Treaty also calls attention to itself. This was done soon after the Reykjavik meeting, when the possibility of an improvement in the international situation had finally appeared, which testifies to the manifestly provocative nature of Washington's step.

The United States' decision, a Soviet Government statement says, gives the USSR every reason to consider itself absolved of its commitments in accordance with the 1972 Interim Agreement and the SALT II Treaty. However, tonsidering the tremendous importance of the question of the need to preserve a key inhibitor of the strategic arms race, the USSR is as yet refraining from withdrawing from the limitations imposed by the SALT I Agreement and the SALT II Treaty. The Soviet Union is counterposing to Washington's irresponsible policy one of peace and international security.

The discussion surrounding the results of the meeting in Reykjavik showed that there are powerful forces not only in American but also in West European ruling circles aspiring to thwart the nuclear disarmament process. On the eve of the meeting even many official statements of leaders of the FRG, Great Britain and France could be heard concerning their interest in the achievement of nuclear arms control agreements, particularly on support for the idea of the "zero option" in respect of intermediate-range missiles deployed in Europe. However, when, as a result of the Reykjavik accords, the possibility of such agreements became a reality, the supporters of nuclear weapons in West Europe were embarrassed. While welcoming the Reykjavik accords in words and even expressing regret that it had not been possible to achieve agreements in the course of the meeting, they put forward a whole number of reservations and conditions pertaining to nuclear disarmament questions.

The leaders of France and Great Britain, for example, made it unequivocally understood that they would like to see a reduction in, but by no means the elimination of nuclear arsenals. FRG Chancellor H. Kohl delivered a statement in which he claimed that in the event of nuclear disarmament, the likelihood of war in Europe would increase. Visiting Washington shortly after Reykjavik, he insisted that the United States not go too far in reducing strategic missiles.

Extensive use came to be made once again as an argument for such "fears" of the proposition concerning the alleged superiority of the USSR and the Warsaw

Pact to the United States and NATO in the conventional arms sphere. Thus yet another attempt was made to instill in the West European public the idea that it is by no means the position of the United States and its closest allies clinging to the "nuclear component of deterrence" but the notorious "imbalance" in conventional arms which is preventing a switch to nuclear disarmament.

However, to informed people in the West such arguments appear unconvincing, at least. The official appeal, worked out in detail, of the Warsaw Pact states to the NATO countries for a start on negotiations concerning a balanced, major reduction in conventional arms and armed forces in Europe, which followed in June 1986, is well known.

Following the meeting in Reykjavik, the position of those who are unwilling to part with former notions concerning security, which do not correspond to the realities of the nuclear-space era, have become more complicated. A qualitatively new situation in determination of the aims and contours of possible nuclear disarmament accords has arisen. The meeting raised to a new level the Soviet-American dialogue and also the East-West dialogue as a whole. The coordination of positions arrived at in the capital of Iceland on such questions as strategic arms and intermediate-range missiles showed that, given good will, a way out of the nuclear deadlock may be found. Evaluating the results of the meeting, the CPSU Central Committee Politburo observed that the struggle for nuclear disarmament had reached a higher frontier, from which it is now essential to increase efforts for radical reductions in and the complete elimination of nuclear weapons.

Reykjavik graphically demonstrated once again the groundlessness of the inventions concerning the "Soviet military threat," with which the West is attempting to justify dangerous plans for an arms buildup and the militarization of space. It is clearer than ever to any sober-minded person today that such a threat cannot emanate from a country which has proven in practice its readiness for nuclear disarmament and is continuing to participate actively in negotiations on both a bilateral and multilateral basis, contributing in every way possible to the achievement of specific accords on questions of disarmament and a strengthening of trust and international security.

And these efforts are producing results. Largely thanks to the constructive policy of the Soviet Union and the other socialist countries, it was possible to achieve the successful completion of the Stockholm Conference on Confidence-Building Measures, Security and Disarmament in Europe, which had lasted over 2.5 years.

The path toward the agreement reached in Stockholm was not easy. Right up to the last minute the fate of the accord hung by a thread. There was still a number of uncoordinated issues by the time of the expiration of the conference's mandate. It was then decided to stop the clock to give the delegations time to overcome the remaining differences.

As a result of strenuous work a final document was adopted. It represents a set of political and military measures elaborated in detail pertaining to a

reduction in the risk of a military confrontation in Europe and the consolidation of security and trust between the parties to the agreement. Their undertaking to notify one another of all exercises, movements, transfers and concentrations of ground forces and air force and naval contingents connected therewith when more than 13,000 men and 300 tanks participate in such military activity is designed primarily to contribute to this. The agreement also incorporates an understanding concerning the invitation of observers from the other participants to all types of military activity. Henceforward the countries which signed the final document will have forward information annually on the plans of their military activity of which notice has to be given.

Among the most important sections of the agreement is an undertaking to respect and implement in practice the principle of the nonuse or threat of force in all its forms. Finally, the Stockholm document was the first agreement in history concerning arms which provides for on-site inspection. The latter may be conducted at the request of other participants in a number of no more than three a year.

Of course, far from all questions on whose solution the creation of strong foundations of trust and security in Europe depends were coordinated in Stockholm. The armies of the countries which signed the final document are not yet being reduced by a single soldier or single tank. It is important, however, that for the first time in a long time it has been possible to reach an agreement in such a complex sphere as the military sphere, and at a time, furthermore, when nothing, seemingly, could have held back the wave of distrust and hostility.

The accords arrived at in Stockholm were possible thanks to the consistent efforts of the socialist countries and neutral and nonaligned states and also the NATO countries which were able to display political realism and a sense of responsibility and adopt compromise decisions based on a strict and mutually acceptable balance of the interests of all the conferees.

The necessary prerequisites were created in Stockholm for the further development and stimulation of the entire all-European process. The third meeting of representatives of the participants in the Conference on Security and Cooperation in Europe began on 4 November in Vienna. Speaking at the opening of it, E.A. Shevardnadze, member of the CPSU Central Committee Politburo and USSR foreign minister, expressed the hope that the success in Stockholm "will mark the formation of a new trend within the framework of the all-European process" and lead to measures of real disarmament in Europe. These words were supported by the overwhelming majority of those who spoke in the general discussion. The proposal to hold in Moscow a representative conference of the participants in the Helsinki meeting on the entire set of questions of humanitarian cooperation elicited the great interest of the participants in the meeting and also of the journalists covering it. The Soviet Union thereby demonstrated once again its readiness to contribute actively to the development of the all-European process.

Extensive comment in Europe, as throughout the world, was elicited by the new Soviet initiatives aimed at strengthening security and stability in the north

of the continent. One way is, as is known, implementation of the idea of the creation of a nuclear-free zone in this region. The Soviet Union has stated repeatedly its readiness to provide such a zone with the necessary guarantees and also to discuss other measures pertaining to imparting nuclear-free status to North Europe. In amplification and development of its position our country deemed it necessary to take a number of new steps, which were communicated in Helsinki by Ye.K. Ligachev, member of the CPSU Central Committee Politburo and secretary of the CPSU Central Committee. These include dismantling intermediate-range missile launchers on the Kola peninsula and a large part of the launchers of such missiles on the remaining territory of the Leningrad and Baltic military districts, which has already been done, and the relocation from these districts of several tactical missile battalions.

In addition, in the event of accord being reached between the corresponding states on imparting nuclear-free status to the Baltic, submarines equipped with ballistic missiles would be withdrawn from the Soviet Baltic Fleet. The USSR has proposed, further, a start on limiting the intensity of large-scale military exercises in the area of North Europe and its adjacent seas.

The recent visits to the USSR of the heads of government of a number of West European states--Denmark, the Netherlands and Norway--testify to the existence of many possibilities of strengthening security and cooperation on the continent. Soviet leaders' negotiations in Moscow with P. Schlueter, R. Lubbers and G.H. Brundtland lent new impetus to the development of mutually profitable relations between the USSR and these states and also revealed the parties' aspiration to a further continuation and extension of the East-West dialogue.

The complexity of the present international situation and the existence of contending trends in its development were reflected in full in the UN General Assembly 41st Session which opened on 16 September in New York.

Two speeches--American and Soviet--denoted the poles of this discussion.

The splendid rhetoric contained in President Reagan's speech was unable to conceal the negative essence of the United States' position on the most important problems of war and peace. The President's speech abounded in points distorting the actual situation and anti-Soviet cliches. The participants in the session were struck by the fact that in addressing them the U.S. President either glossed over entirely or left unanswered the peaceable actions of the USSR, specifically the moratorium on nuclear testing. As many observers noted, the sections of the President's speech devoted to SDI induce the thought that he by no means aspires to the achievement of compromise but is attempting to interpet the current ABM Treaty such as to obtain a bypass to the achievement of military superiority to the USSR. U.S. President Reagan's UN speech induces "skepticism" in respect of arms control prospects, THE BOSTON GLOBE observed editorially.

From the podium of the United Nations Reagan once again declared support for the American mercenaries in Nicaragua and deliberately distorted the true reasons for many regional conflicts, not mentioning even the most important of them, the Near East conflict included.

The Soviet Union came to the session with a comprehensive program of action pertaining to removal of the nuclear danger, a halt to the arms race and the preservation and strengthening of general peace. "There is only one way to security--destruction of the arms which already exist and not replacing them with new ones. The technology of destruction must not be allowed to determine policy," E.A. Shevardnadze declared, addressing the session. The participants in the session heard in this speech not only cogent criticism of the military-power approach which determined the speech of the American president but also an analysis of the extensive opportunities for the practical realization of an idea to create an all-embracing system of international security providing for affirmation of the principles of civilized, correct interstate exchange.

The USSR and the other socialist countries submitted specific proposals concerning the creation of such a system for examination by the participants in the session. The course of the debate showed that this initiative is broadly supported by the world community. The overwhelming majority of states voted for them during the vote on drafts of corresponding resolutions in the First Committee and subsequently at plenary meetings of the UN General Assembly session. Only the United States and France demonstrated their destructive approach, voting "against".

2. Striking Example of the New Thinking

The process of building new international relations is a difficult one. There are now and will continue to be many obstacles in its way. All the greater is the need for purposeful and assertive action. A big step in this direction was M.S. Gorbachev's visit to India and the Delhi Declaration on the principles of a nonviolent world free of nuclear weapons, signed by Gorbachev and R. Gandhi. Undoubtedly, this is a unique document. Its very title speaks for itself. In the declaration both parties recorded their vision of a world which has no room for the use or the threat of force and where there is respect for each people's right to their own choice--social, political, ideological. The exceptional nature of the declaration lies not only in its form and content but also in the fact that it was drawn up and signed by states belonging to different socioeconomic systems, states whose high international weight and authority are obvious, finally, states whose total population constitutes one-fifth of all mankind.

Naturally, a document of such a scale elicited numerous commentaries in the foreign mass media. Specifically, the British TIMES points out that the declaration "contains a call for specific and immediate action in the nuclear disarmament sphere" and that it accords with the policy announced by the USSR on 15 January 1986. Presenting a statement in parliament on the results of M.S. Gorbachev's visit, R. Gandhi observed: "The Delhi Declaration represents a vitally important initiative. It sets forth the principles which must be recognized everywhere if we wish to have a peaceful future."

The thoughts and proposals expressed by the general secretary of the CPSU Central Committee during his visit to the Indian capital are consonant with the ideas contained in the Delhi Declaration. They include primarily the idea concerning the increased significance in the nuclear age of international

institutions and organizations like the nonaligned movement, the OAU and, of course, the United Nations. The Soviet Union advocates the utmost strengthening of its authority and, specifically, supports the proposal of the UN secretary general concerning the creation within its framework of a multilateral center to reduce military dangers.

If it is not possible to turn back the arms race, a menacing source of military danger could be space. On the other hand, the peaceful conquest of near-Earth space as the common property of mankind is capable of helping solve many global problems which are becoming increasingly acute, particularly in the developing countries. Proceeding from this, the Soviet Union has proposed the creation with the help of the leading space powers of an international center for the joint study and development of space technology models in accordance with the orders of the developing countries, the training of specialists, including cosmonauts, and the launch of space facilities. Such a center, in the event of India's consent, could be accommodated on its territory, the more so in that the country already has definite achievements in the sphere of the conquest of space and experience of joint activity, with the USSR included.

Consolidation of the international situation and the development of states' bilateral and multilateral cooperation are inconceivable without a growth of these processes in such a vast region as Asia and areas of the Pacific and Indian oceans adjacent to it.

The Soviet concept of the connection of the Asia-Pacific region with the creation of an all-embracing system of international security was set forth in comprehensive form for the first time on 28 July 1986 in Vladivostok. Big things can be seen from a distance, and the farther we are away from this event, the better we understand its significance. The force of the ideas advanced in the Vladivostok speech is being manifested in their growing influence on the policy of states of the region. Even those who would very much like to do so cannot simply brush aside the questions raised there and the proposals which were expressed.

This government or the other reacts variously, of course. Thus the certain intensification of contacts aimed at the development of cooperation between the USSR and a number of ASEAN countries is being served up as "cultivation of these states on Moscow's part". Simultaneously the ruling circles of Japan and the United States are stepping up efforts aimed at ensuring their strict attachment to the West.

The growth of the antinuclear mood in the South Pacific and the aspiration of young island states to develop economic relations with the Soviet Union are causing serious concern in the capitals of a number of Western countries, again primarily of Japan and the United States. Intimidation with the "Soviet threat" is being combined with promises of financial handouts. The reason Tokyo and Washington have suddenly recalled the difficult problems and needs of the ocean states is not concealed--"the need to counter Soviet penetration" in this region.

The chronic syndrome of "absenting" the USSR from the processes of the internationalization of economic relations in the Pacific region was also reflected, apparently, in the position of the circles which originally had responded negatively to the Soviet Union's wish to send an observer to the fifth session of an influential regional organization--the Conference on Economic Cooperation of Countries of the Pacific. The session was held 16-19 November in Vancouver (Canada), attended for the first time by an observer from the USSR. Within the framework of the discussion the representatives of Australia, Indonesia and Malaysia opposed the conversion of the regional organization into an "exclusive club," and the Thai representative expressed the hope that the USSR would in time become a full member of it.

A representative international conference on the subject "Finances, Trade and Capital Investments in the Pacific Region" was also being held simultaneously in the Australian city of Perth, which is situated on the shore of the Indian Ocean. Addressing it, D. Balderstone, head of the major Australian monopoly [BKhP], raised, inter alia, the question of the growing influence of the Soviet Union, noting that "the USSR will evidently perform a considerable role in the economy of the Pacific region."

The experience of the long-standing dynamic development of mutually profitable economic, commercial and S&T cooperation between the USSR and India is very valuable for the search for ways to expand the Asia-Pacific countries' economic relations with different socioeconomic systems. Important new steps pertaining to their further extension were outlined as a result of M.S. Gorbachev's visit. As the CPSU Central Committee Politburo observed, the entire atmosphere of the visit, the nature of the negotiations, particularly the dialogue of the two leaders, and the documents adopted in conclusion testify to the unique nature of the relations taking shape between two major powers belonging to different social systems and the tremendous significance and broad prospects of their cooperation for the good of their own peoples and in the interests of general progress and peace.

It was natural that a large place in the Delhi dialogue was occupied by discussion of the situation on the continent and the zones of the Indian and Pacific oceans adjacent to it. A set of measures had been proposed in Vladivostok pertaining to a settlement of regional conflicts and a lowering of military tension and prevention of the growth in this region of confrontational, bloc trends. A correspondent of the Japanese newspaper ASAHI emphasized that the importance of Asia in the USSR's policy was demonstrated once again in Delhi, and THE TIMES observed that M.S. Gorbachev "made a series of clear and effective proposals aimed at reducing tension between the superpowers in the Indian Ocean."

To what is the reference? Having confirmed its support for the UN decision to hold, no later than 1988, an international conference concerning declaration of the Indian Ocean as a zone of peace, the Soviet Union declared its readiness to begin negotiations at any time with the United States and other nonlittoral states with warships in the Indian Ocean on a permanent basis. An arrangement could be arrived at on an appreciable reduction here in the strength and activity of the navies, confidence-building measures in the military sphere with reference to Asia and the adjacent waters of the Indian

and Pacific oceans, the formulation of guarantees of the security of sea lanes and air routes and so forth. At the same time, however, our country's leadership has emphasized repeatedly that the Soviet Union is ready to discuss the proposals of other states. This applies in full to the problems of a zone of peace in the Indian Ocean also.

Washington's persistent attempts to strengthen or establish military relations with other states call attention to themselves against the background of the purposeful activity of Soviet diplomacy pertaining to affirmation of new political thinking in the world community. The Asia-Pacific region occupies far from last place here. There have been more than enough examples of this in recent months. A most recent and dangerous was the decision to deploy American Lance tactical missiles in South Korea. The United States is thereby essentially introducing new nuclear parameters to the military situation in the Far East.

Speaking at the start of October in Anchorage (Alaska) prior to his tour of the region, U.S. Defense Secretary C. Weinberger claimed that "the United States is not impeding any peaceful cooperation and peaceful competition" and does not aspire "to the creation of an anti-Soviet bloc in the Pacific." He even declared: "It is in Asia and the Pacific that new models of international politics may be forged which will afford the best opportunity for peace throughout the world"--a phrase clearly aimed at China and India, where he was to conduct negotiations. However, the real essence of the policy of the present Washington administration was shown by the calls hereupon expressed by C. Weinberger for "strong" and "convincing deterrence" of the Soviet Union.

The policy of imperialist diktat, the policy of strength, is a most important, albeit not the sole, obstacle on the long and difficult path to a "nonviolent world free of nuclear weapons". However, the joint efforts of such powers as the Soviet Union and India make it possible to hope for big, real changes in the business of ensuring stability and security not only in Asia but in other parts of the world also.

3. Regional Conflicts--Threat to Peace and International Security

Whereas in Europe the balance of forces established following WWII has kept the peace for more than 40 years now, the developing countries have throughout this period been an arena of endless conflicts and local wars. And, furthermore, whereas initially they were connected mainly with the anticolonial struggle, the socioeconomic conditions in which the developing states found themselves following their acquisition of political independence began subsequently to come increasingly to the fore.

In October it was 30 years since the start of the Anglo-French-Israeli aggression against Egypt. The decisive position of the USSR, which came to the defense of the Egyptian people, had a sobering influence on the aggressors. The United States, which put pressure both on its allies--competitors for influence in the region--Britain and France, and also on Israel, also played its part in halting the military operations at that time.

Imperialist circles have since then made many other attempts to restore lost positions in the developing countries, which has led to new "flash points" of the planet. The problem of regional conflicts has become particularly serious since the assumption of office in the United States of the present administration. Ignoring the true reasons for the processes occurring in the developing countries--the aspiration of their peoples to social justice and efforts to surmount the consequences of the colonial past, primarily backwardness, poverty and hunger--U.S. ruling circles explain the changes in these countries solely by "Soviet interference". In accordance with this notion, any developing country which has embarked on a path of social transformations could be a "legitimate" target of various forms of American interference--from active support for local antigovernment forces through open intervention, as was the case 3 years ago with Grenada--a tiny island state in the Caribbean.

The danger of such a turn of events currently exists for Nicaragua. Seven years ago one of the cruelest dictatorships on the continent was ousted in this country. Democratic forces headed by the Sandinista National Liberation Front, whose 25th anniversary was celebrated in November, came to power. The revolutionary government inherited a devastated economy, hunger and illiteracy. Huge changes have occurred since that time. Agrarian reform is being implemented in the countryside, and cooperatives and state farms are being created. The positions of the state sector in industry are strengthening. At the same time, however, the local bourgeoisie retains an important role in the economy, which is of a mixed nature.

Of course, the republic's achievements might have been far more significant had it not been for the necessity to defend the revolutionary gains against the encroachments of internal and external reaction. Under the conditions of the undeclared war unleashed by Washington and its mercenaries against Nicaragua a considerable proportion of the country's budget (almost half in 1985) goes on defense. This has led to a slowing of the process of profound socioeconomic transformations begun immediately following the revolution. The rate of growth of the GNP has fallen and there has been a slowdown in the progress of the agrarian reform. An acute shortage of basic necessities is being felt. Inflation is expressed in three figures.

Not confining itself to economic blockade and political-diplomatic pressure on the republic, Washington is attempting to stifle the revolution through the hands of the "contras"--motley groupings of enemies of the regime uniting former Somocistas and other renegades. CIA mercenaries carry out attacks on inhabited localities from the territory of neighboring Honduras and Costa Rica almost daily and kill the peaceful inhabitants. American advisers are not only training the "contras" but also participating directly in armed sallies against Nicaragua. Evidence of such activity was the affair of the transport plane shot down by Nicaraguan air defense forces on 5 October. The surviving American military adviser confessed that he was on a CIA mission delivering weapons and ammunition to the "contras".

The Washington administration adopted a decision to train the "contras" directly on its territory. U.S. official circles are openly discussing plans to oust the government of a sovereign country. According to American press

reports, Washington is seriously studying the question of severing diplomatic relations, which would facilitate the unleashing of direct military intervention against Nicaragua.

The United States' aggressive actions against Nicaragua are an integral part of the "neoglobal" policy being pursued by Washington, individual components of which intermingle in the oddest way.

What relation could there be between events occurring in Iran and Afghanistan and the situation in Central America? A direct one, it turns out. In the course of the clamorous political scandal which erupted in the United States in connection with the the White House's "Iran operation" truly astounding factors have become known. American weapons were supplied to Iran not only for the purpose of prolonging the war between this country and Iraq. Some of them were intended for secret transfer to the bands of rebels in Afghanistan. But even this is not all. The money obtained from the weapons sales was put at the disposal of the Nicaraguan "contras," through which Washington is waging an undeclared war against the Sandinistas.

Thus the White House's "Iranian operation" pursued several goals simultaneously: dragging out the Iran-Iraq conflict, further enlisting Tehran in the undeclared war against democratic Afghanistan, circumventing congressional restrictions on assistance to the Nicaraguan "contras" (direct military assistance had at that time been prohibited by the legislators) and, finally, and what is most important, establishing contacts with "moderate" (per the accepted terminology in administration circles) elements in the Tehran leadership.

As it turned out, such contacts had been established back at the start of the 1980's, when Washington had concluded that the forces opposed to the regime (both inside Iran and outside) had no chance of coming to power. If we leave aside the details of the "Iran operation," which give it the nature of a mediocre detective story, a plan with far-reaching intentions emerges: supporting "moderate" elements in the Tehran leadership and contributing to a strengthening of their positions, returning Iran in time to the orbit of American influence.

All this is fully inscribed in Washington geopolitical strategy in the Near and Middle East, which has been declared "a sphere of the United States' vital interests". Within its framework Iran, which occupies a position between the USSR and the oil deposits of the Persian Gulf, is assigned an exceptionally important role. In the opinion of some observers, it is ultimately a question of the United States' endeavor to create a new Washington--Islamabad--Tehran axis. The hostile attitude of the Pakistani and Iranian leaderships toward democratic Afghanistan and the participation of Islamabad and Tehran in the undeclared war against the DRA should, Washington calculates, contribute to the cobbling together of this axis.

The surprise exposure by a number of Iranian officials of the White House's secret diplomatic initiative struck a telling blow not only at the prestige of the administration and President R. Reagan personally but also at the United States' entire policy in the region. Analyzing the reasons which prompted

Tehran to report the "Iran operation," many observers explain them by the struggle within the country's leadership, in the course of which a charge of ties to the West frequently serves as a telling argument for the removal of whole groupings from power. In the opinion of a number of Western press organs, specifically the French LE MONDE, as a result of the exposure of the "Iran operation" the opponents of the United States in the Iranian leadership won a big victory.

Having been made public, the facts of Washington's secret weapons supplies to Tehran for continuation of the war with Iraq have also damaged the United States' relations with the Arab countries, the majority of which support Baghdad in this war. The hypocrisy of the Washington administration, paying lipservice to its intention to exert every effort to end supplies of weapons to Iran, but in practice having approved them, shocked many of those who considered themselves allies of the United States in this region.

It cannot be said that this fact was a particular surprise for observers. The fact that while granting Iraq hundreds of millions of dollars annually Riyadh has simultaneously attempted not to set Iran against itself unduly has long been noted by many of them. Until recently this position of Saudi Arabia's was explained mainly by the fact that Riyadh takes very seriously Tehran's threats to strike at the Saudi oilfields and even destabilize this country if it actively supported Iraq in the conflict. Some observers are inclined to see the same motives in Saudi Arabia's actions connected with the secret supplies of weapons to Iran.

But other considerations are being expressed in this connection also. They amount to the fact that not only Washington and Tel Aviv but also Riyadh has an interest in the continuation of the Iran-Iraq war. Explaining the reasons for this interest, the journal AFRIQUE-ASIE, which is published in Paris, wrote at the start of 1986 (that is, prior to the "Irangate" scandal): "Petrodollars are the sole source of Saudi Arabia's power. It can preserve the influence it has acquired in the past decade only if no other country of the region is capable of threatening its leading position. This applies both to Iran in the period since the ouster of the Shah with its theory of the export of Islamic revolution and also Iraq, which has caused concern in connection with its national wealth and technical and military possibilities. Like Washington and Tel Aviv, but for reasons connected more with preservation of the monarchical system, Riyadh also is interested in both countries being brought to their knees. If they are its "debtors," even better.

Of other events in the Near East in the past months the attention of the world's press has been attracted to a series of articles in the British SUNDAY TIMES confirming the long expressed suppositions concerning Tel Aviv's significant nuclear potential. As is known, the corresponding material was made available to the paper by M. Vanunu, an Israeli specialist in nuclear physics. If the facts which he adduced correspond to reality, which practically no one doubts, this introduces a new, highly dangerous element to the correlation of forces and the entire situation in the Near East. At the same time there is much that is unclear in the affair concerning Vanunu's appearance in the West and his subsequent mysterious disappearance. Viewing the "Vanunu affair" in the context of the overall military-political

situation, some Western press organs are expressing the opinion that Tel Aviv itself organized the information "leak" for the purpose of the nuclear blackmail of neighboring countries, primarily Syria, which Israel regards as its strongest enemy.

The timing of the appearance of the articles on Israel's nuclear program calls attention to itself also. They coincided with the "castling" in the Israeli Government--the "moderate" S. Peres relinquished the position of prime minister to Y. Shamir, who has the reputation of being a supporter of a harder line. It is indicative that following the change of leadership pressure on Syria was stepped up and open threats against it became more frequent.

In the wake of Tel Aviv the anti-Syrian campaign was joined by London and Washington. The British Government even broke off diplomatic relations with Damascus, and some time later the U.S. ambassador was recalled. The reason for these actions was the "Hindawi affair"--a Jordanian carrying a Syrian passport arrested in London charged with attempting to blow up a plane belonging to the Israeli airline. Many organs of the Western press, British included, note the existence of highly dubious aspects in this "case". Besides, not one "fact" adduced by London serves as proof of Syrian "complicity" in terrorism. Rather, they testify to a preplanned operation of the Israeli special services aimed at discrediting Damascus.

This supposition was expressed not only by observers but also French Premier J. Chirac (in an interview with THE WASHINGTON TIMES). The same interview and a number of other speeches of the head of the French Government showed the groundlessness of the assertions that responsibility for the terrorist actions perpetrated last fall in West Europe lies with Damascus.

Paris' opinion is particularly important. The problem of terrorism has affected France more than any other West European country, and for this reason the French authorities primarily are concerned to ascertain the truth.

Many people are asking why precisely France became the main target of terrorism last fall. There are most diverse opinions on this score. Whereas some people go on persistently about the "Arab connection," others see the wave of terrorism which crashed down on the country in the context of the foreign policy course being pursued by Paris, primarily its stance on the Near East problem. As is known, earlier France supported the USSR's proposal concerning the creation of a preparatory committee for convening an international conference on a settlement of the Near East situation. Are not the terrorist actions an attempt to force France to revise its decision, some observers wonder.

Analyzing the situation in the Near and Middle East, Western specialists frequently assert that even a solution of the Palestinian problem will not lead to the establishment of peace in the region. Of course, it does not exhaust the contradictions which exist here. But it is the main source and main cause of the explosive situation in the Near East as a whole and, besides, imparts additional seriousness to the other conflicts which exist both within the framework of individual Arab countries and in their relations with one another.

Long-suffering Lebanon, where the presence of hundreds of thousands of Palestinian refugees deprived of their homeland and also armed formations of the Palestinian resistance movement, which have found themselves involved in an internal conflict of contending groupings, is undoubtedly complicating the search for a political settlement, may serve as an example. Some of Lebanon's political groupings, and not only rightwing Christian, what is more, but Muslim also, are inclined to see this presence virtually as the main source of the tragedy being experienced by the country--and this despite the unceasing interference of Tel Aviv, supported by Washington, in internal Lebanese affairs.

The tense situation in the region is causing many states' concern, and there is growing support for the USSR's proposal concerning the convening of an international conference for settlement of the Near East conflict under the aegis of the United Nations with the participation of all interested states, including the PLO. The Soviet Union advocates a political solution of other conflict situations in the Near and Middle East also, whether the Iran-Iraq conflict or the situation which has taken shape around Afghanistan.

Part of the limited contingent of Soviet forces temporarily in the DRA at the request of the government of the republic was withdrawn from this country in the latter half of October. Having performed their international duty, 6 regiments (1 tank, 2 motorized rifle and 3 air defense) with their attached equipment and armament returned to their permanent stations in the Soviet Union. Under the conditions of the continuing undeclared war these actions serve as convincing testimony to the USSR's constructive approach to the problem of a political settlement of the situation and a clear indicator of the gradual strengthening of the positions of people's power in Afghanistan.

Describing the course of the Afghan-Pakistan negotiations, which are being conducted in Geneva via the personal respresentative of the UN secretary general, the official representative of Afghanistan declared that "certain progress in the direction of a rapprochement of positions has come about."

4. From the Addition of Efforts to the Multiplication Effect

In the vanguard of the struggle for a world free of nuclear weapons, violence and hate is the socialist community. Its impact on the course of world development depends more than ever on the successes of each individual country and the community as a whole and a strengthening of the all-around cooperation of the socialist states. Interaction between them has risen to a higher level recently and has been enriched by new forms. An important part in this process is played by the regular meetings of leaders of the community countries. They make it possible to consult in prompt and comradely fashion on the entire set of problems of socialist building and its internal and external aspects.

The latest such meeting was held 10-11 November in Moscow. It discussed cardinal problems of cooperation between the socialist countries and the possibilities of the fuller revelation of the creative potential of socialism. The leaders of the fraternal parties paid particular attention to the continued extension of relations in the economic sphere and the use of new,

most progressive forms of economic and S&T interaction in the interests of acceleration of the socioeconomic development of the fraternal countries and the increased well-being of their peoples.

A singularity of the current stage of the development of the members of the socialist community is the fact that they are tackling creative tasks to augment its economic potential and perfect mutual cooperation in a difficult international situation. For this reason a most important direction of their joint actions is the struggle to prevent a nuclear catastrophe, a real threat of which is looming over mankind. Having supported the high-minded position of the Soviet Union in Reykjavik, the participants in the working meeting of leaders of the socialist countries emphasized the need for an increase in joint efforts in the interests of the struggle to eliminate nuclear and reduce conventional arms and strengthen peace and international security.

Another singularity is that in the 1980's there has been a complication in the very conditions of socialist social reproduction. The problem of the limits of extensive growth and a deterioration in foreign economic conditions (the credit blockade and the various trade embargoes of imperialism, sharp fluctuations in the prices of the capitalist market and so forth) have appeared more acutely than before. Nonetheless, the members of the community have been able to surmount the trend toward a reduction in the economic rate discerned at the start of the present decade.

In the period 1981-1985 as a whole national income in the community countries grew 18 percent, industrial production, also 18 percent and agricultural production, 11 percent. In terms of the dynamics of the growth of national income the CEMA members were superior to the developed capitalist states by a factor of 1.4, and of industrial production, 1.8.

An increasingly big role in the development of each CEMA country is performed by reciprocal trade, the volume of which in 1985 amounted to 198 billion transferable rubles. The value of the goods and services exchanged annually within the CEMA framework constitutes on average approximately one-fifth of the members' total national income.

At the same time, on the other hand, the new requirements of economic development and the changes in the international situation are demanding that qualitatively different frontiers be reached in economic development and mutual cooperation. Large-scale tasks were set at the recent congresses of the fraternal states' communist and workers parties. The most important of them was an acceleration of socioeconomic development based on an intensification of social production and a cardinal increase in its efficiency.

A particular place is occupied by the Fourth Lao People's Revolutionary Party Congress, which was held in mid-November and which determined the main directions of the creation of a new management machinery and the tasks of the entire period of transition to socialism. Problems of increasing the rate of S&T progress and surmounting shortcomings were discussed at a special session of the Third Cuban CP Congress which opened on 30 November. These tasks were reflected in the new party program adopted at the session. The fundamental Marxist-Leninist documents approved by the congresses of the fraternal parties

note the unprecedented dimensions assumed by the ideological and cultural contacts of the socialist countries.

The need for all-around relations between the fraternal countries was emphasized at the top-level Soviet-Korean meetings and negotiations in the course of the visit to the Soviet Union of Kim Il-song, general secretary of the Korean Workers Party Central Committee and president of the DPRK.

While affording additional opportunities for an expansion of commodity exchange between members of the community, the acceleration of socioeconomic development at the same time also makes new, higher demands on mutual cooperation. There is primarily an increased need for unification of participants' efforts in socialist integration for a more efficient accomplishment of S&T tasks and a fundamental retooling of the economy, which, in turn, demands an improvement in the entire system of the reciprocal division of labor and activity within the CEMA framework. Most important decisions in this sphere were adopted at the CEMA 42d Session held 3-5 November 1986 in Bucharest.

The session studied the course of implementation of the Comprehensive Program of the CEMA Countries' S&T Progress up to the Year 2000 and outlined measures to speed up its fulfillment. This program, which has developed into a system of interconnected agreements and treaties, is becoming the "pivot" of the CEMA countries' integration cooperation and the basis of their science-production cooperation and reciprocal trade.

In fact it is a question of making a transition to a qualitatively new level of cooperation, a distinguishing feature of which will be the joint creation and determination of the circulation of new equipment and technology and the increased efficiency of socialist integration. The CEMA session set tasks to surmount decisively a number of shortcomings in the interaction and to secure the highest world technical level and quality of reciprocally supplied products in combination with the timely fulfillment of adopted commitments and such.

A most important direction of the joint efforts is the development of nuclear power. The session approved a program of the construction of nuclear power stations and nuclear heat-supply plants up to the year 2000.

The CEMA countries have already accumulated a wealth of experience of cooperation in this field. An agreement was concluded in 1979 on multilateral international specialization and cooperation of production and also reciprocal supplies of equipment for nuclear power stations, within the framework of which 50 major industrial enterprises and associations of the CEMA countries and Yugoslavia are interacting. Nuclear power stations in the USSR, the CSSR, Bulgaria, Hungary and Poland and on Cuba have already been built or are being built on the basis of jointly manufactured equipment.

The program of construction of nuclear power stations up to the year 2000 approved by the CEMA 42d Session provides for their total capacity in the CEMA countries (not counting the USSR) to have been raised by the start of the 21st century to 50 million kwt compared with the approximately 8 million in 1986.

Currently up to 35-40 percent of all primary energy resources goes to obtain low-temperature thermal energy, whereas 25-28 percent goes to generate electric power. The construction of nuclear heat-supply plants will make it possible to economize on a considerable quantity of organic fuel in short supply.

In the process of realization of the program of construction of nuclear power stations up to the year 2000 paramount attention will be paid to an enhancement of their engineering level and safety. The CEMA countries aspire here to extensive international interaction based on the proposals submitted to the IAEA by the USSR.

The CEMA countries attach particular significance to assisting the acceleration of the development and increased efficiency of the economy of Vietnam, Cuba and the MPR for the purpose of equalization of development levels of all countries which are members of the socialist community.

The transition to a qualitatively new level of the CEMA countries' interaction is connected with the use of fundamentally new organizational-economic forms of cooperation. Considerable importance among them at the current stage of integration is attached to direct relations between the primary economic components of the participants in this process--enterprises, enterprise associations and scientific organizations.

It is a question not only of a stimulation of interaction at the microlevel of the national economy but essentially of a fundamentally new approach to the organization of cooperation. Under current conditions such an approach makes it possible to uncover unutilized large-scale interaction potential, which can be best seen at enterprise level, and increase appreciably the interest of the direct producers and consumers of the products and services realized on the CEMA market, making them real subjects of the interstate division of labor.

The direct relations of engineering enterprises and those of other sectors of manufacturing industry endowed with economic independence raise considerably the flexibility and operational efficiency of cooperation since they make it possible to avoid the coordination of numerous questions at the macrolevel of management of the economy. This is particularly important in connection with a transfer of the center of gravity of interaction to the practical accomplishment of the tasks of an acceleration of S&T progress. For this reason a paramount role in realization of the Comprehensive Program of S&T Cooperation is assigned the development of direct relations.

Currently direct relations with partners are maintained in the USSR alone by approximately 300 enterprises. They have already produced considerable economic results. For example, direct relations between the CKD-Elektrotechnika Plant in Prague and the "Elektrosila" Production Association in Leningrad have enabled our Czechoslovak friends to assimilate more rapidly the production of powerful air-cooled induction engines and introduce new insulating materials and systems.

Highly efficient installations for obtaining polyethylene by the "Polymer 50" and "Polymer 60" high-pressure method corresponding to the level of the best

world models have been created in the process of cooperation between the "Plastopolimer" (USSR) Science-Production Association and the W. Ulbricht Leuna-Werke Enterprise (GDR). Thanks to direct interaction, the duration of the "development--assimilation" cycle has been almost halved compared with the period which would be required by each country if the work were performed independently.

Increasingly great significance for the organization of the socialist countries' close interaction is also attached to their joint science-production associations, enterprises and design offices operating on a financially autonomous basis. Thus the USSR and Bulgaria have set up two joint science-production associations in machine-tool building.

At the same time the spread of the new progressive forms of cooperation does not yet correspond to the requirements of the current stage of the development of integration. A reason for this is the lack of economic information concerning related enterprises in the fraternal countries, which makes the search for a partner more difficult. The direct relations themselves are in many cases established from above, without regard for the actual possibilities and interest of the future partners. Nor has the economic independence of the enterprises, which are forced to coordinate with the higher management authorities many questions of interaction, acquired a real nature as yet.

All this is holding back the development of science-production cooperation in the community. The proportion of supplies of cooperative components and parts, for example, in the total reciprocal machinery and equipment trade constitutes merely 5-11 percent.

This is why an intensive search is under way for paths of the more active use of the new forms of cooperation, primarily to accelerate implementation of the Comprehensive Program. During the CEMA 42d Session the Soviet Union, Bulgaria, Hungary, the GDR and Czechoslovakia signed bilateral intergovernmental agreements which determined measures to expand direct relations and create joint enterprises and international associations and organizations.

The key prerequisites for the efficient use of new forms of cooperation are created by an improvement in the international economic integration mechanism and the national mechanisms of the CEMA countries. In the first case it is a question of currency-finance questions arising at the time of cooperation and also problems connected with the financing of joint programs and methods of distributing the results of the cooperation.

In the sphere of improvement of the domestic economic mechanism the increaased economic independence of the enterprises, the removal of interruptions in material-technical supply and grants of broader rights in the foreign economic sphere are necessary. Serious steps in this respect are being taken currently by practically all the CEMA countries. Thus of the 51 foreign trade enterprises in the GDR, 30 are a part of industrial complexes, including 6 which exercise foreign trade functions on their own behalf.

The number of enterprises and organizations which have acquired the right to conduct foreign trade activity is expanding in Hungary, Poland and other CEMA countries.

The CPSU Central Committee and USSR Council of Ministers decrees "Measures To Improve the Management of Foreign Economic Relations" and "Measures To Improve the Management of Economic and S&T Cooperation With the Socialist Countries," which are a part of the profound reorganization of the economic mechanism planned by the 27th CPSU Congress, are aimed at a qualitative restructuring of foreign economic ties.

The measures which are being adopted create the conditions for the development of the initiative of the lower levels of cooperation and the rapprochement of economic mechanisms of the CEMA countries. Specifically, as of 1 January 1987 more than 20 USSR ministries and departments and also 70 major associations and enterprises will be accorded the right to engage directly in export-import transactions.

Soviet associations and enterprises are accorded extensive rights in the development of direct relations with enterprises and organizations of other CEMA countries. Specifically, it is envisaged that they will independently decide all questions of cooperation, including the determination of the directions and specific purposes of cooperation, choose their partners in the CEMA countries and practice joint-labor supplies, including the signing of business contracts and contracts for the supply of products and the rendering of services connected with the cooperation and development of production. Determination of economic conditions for cooperation, including the coordination of the prices of the joint-labor component products and services rendered, will be within the powers of the enterprise practicing the direct relations here.

All this affords qualitatively new opportunities to ensure that the addition of the efforts of the socialist community countries have a multiplication effect. Creative search for unused potential and concern for the dynamic and efficient nature of the cooperation relations are closely linked with the main purpose of the strategy of socialism--securing for the peoples the conditions for them to work in an atmosphere of lasting worldwide peace without fear of a nuclear catastrophe.

5. The Capitalist Countries: Hot Political Fall

The fall months were marked by an exacerbation of the sociopolitical struggle in many developed capitalist countries. This was connected not only with such factors as the end of the summer vacation period, the resumption of the parliamentary session and the conclusion of new collective bargaining agreements. Together with domestic problems questions of foreign and military policy moved increasingly toward the center of the struggle. The debate on this last fall was under the direct impact of the results of the top-level Soviet-American meeting in Reykjavik. The divide between the forces advocating a change for the better in the present international situation and those which

aspire to a continuation of the dangerous policy of confrontation with the socialist world and the national liberation movement appeared in greater relief in the course of the discussions.

In a number of countries the domestic policy struggle assumed extra seriousness in connection with elections to the organs of power. This applies primarily to the United States, where the entire House of Representatives, one-third of the Senate and 36 state governorships were up for reelection at the start of November. Customarily in the course of the election campaign preceding the mid-term elections the electorate's attention is concentrated mainly on local problems and also the personalities of the candidates themselves. However, on this occasion the leadership of the Republican Party decided to break with tradition and make the elections a kind of national referendum, at which it looked to win approval for the domestic and foreign policy pursued by the administration.

One and the same refrain was heard in every key in R. Reagan's numerous speeches on the eve of the elections: if the Republicans were to lose their majority in the Senate, the President would have to govern in the 2 years remaining until the end of his term in an atmosphere of constant conflict with the Congress. Reagan instilled in the electorate the opinion that he would thereby be deprived of a chance to make effective decisions on most important questions of domestic and foreign policy, including in the sphere of Soviet-American relations.

However, despite the concentrated pressure on the electorate and an extraordinarily assertive campaign, the Republican Party incurred palpable losses at the elections. In the Senate, for the control of which the main struggle had developed, the Republicans lost 6 seats, and now the ratio between them and the Democrats in the upper chamber constitutes 45:55 in favor of the latter.

This outcome of the elections undoubtedly reflected Americans' growing discontent with the activity of the administration, of which the Republicans' rivals did not fail to avail themselves, having made the center of the election campaign criticism of the most negative consequences of Reaganomics for individual states and the country as a whole. Here are just some of them. The federal budget deficit, the basis of which is the huge military spending, amounted on 30 September, which ended the fiscal year, to a new "record" of $220.7 billion. The foreign trade deficit, according to preliminary estimates, will also be in excess of the 1985 indicator and will constitute almost $200 billion.

At the same time it cannot be said that the outcome of the elections testifies to a sharp upsurge of the political influence and authority of the Democrats. With 2 years to go until the next presidential election the second main political party of the United States has not overcome internal division and lacks positive slogans and ideas capable of mobilizing the majority of the electorate. American observers note the erasure of the ideological differences between the two parties to such an extent that "they represent a mirror image of one another". This and also the general decline in the prestige of the two

leading parties in the United States explains the extraordinarily low proportion of Americans who turned out for the elections on 4 November--less than 40 percent of eligible voters.

The inauspicious outcome of the elections for the Republicans could, observers believe, create a new political situation in the country. Circles of the Democratic Party, on which the election success has had, according to one of its leaders, J. Mitchell, a "surprise psychological effect," have begun to talk about "the beginning of the end of the Reagan era" and about the fact that a good start has been made for the struggle for the White House in 1988. Either way, one thing is clear: more difficult times than before lie ahead for the present administration. In fact they are already here.

The clamorous political scandal connected with the illegal supplies of American arms and spare parts to Iran has dealt the prestige of the government and the head thereof personally a very powerful blow. Congressional committees, where, following the elections, Democrats have taken over the leadership, intend demanding, according to CBS, a full accounting of the "secret diplomatic initiative," which developed into "outright deception of Congress, the allies and the public." According to many observers, investigation of the administration's illegal activity could perfectly well lead to a political crisis which would prove comparable in scale to "Watergate" or surpass it even.

How events will develop, time will tell. But it is clear even now that they are fraught with most serious consequences for the administration and the President personally. Never yet in his entire term of office has the present occupant of the White House found himself under the fire of such wide-ranging and sharp criticism, nor has distrust of the activity of the government on the part of the public assumed such menacing proportions.

The axis of political life in another leading capitalist country--the FRG--last fall revolved around preparations for the Bundestag elections scheduled for 25 January 1987. Congresses of the majority of political parties were held in October-November which adopted the programs with which these parties intend to present themselves to the electorate. For understandable reasons particular attention in the country and outside was attracted to the congresses of the two main rivals at the elections--the Christian democrats and the social democrats. What did they show?

Let us start with the CDU Congress held 7-8 October in Mainz. It confirmed the party's adherence to a domestic and foreign policy course which runs counter to the interests of broad strata of the population. In the socioeconomic sphere the leaders of the Christian democrats, painstakingly avoiding the country's acute problems, primarily unemployment, concentrated attention on criticism of the results of the rule of the social democrats in the 1970's and speculation on the tremendous difficulties which, the speakers at the congress asserted, the country would inevitably face in the event of a return to power of the SPD. For the greater persuasiveness of their rhetoric the proposition that inasmuch as the social democrats cannot win an absolute majority of the vote and take office independently they would have to enter into an agreement with the "Greens" and that this, it is said, would lead to the creation of a

coalition of "irresponsible" figures incapable of adopting "balanced" decisions was circulated.

Neither the "Manifesto for the Future" which the congress adopted nor the speeches of the CDU leaders contain a hint even of any foreign policy initiatives which might contribute to an improvement in the present international situation. There are, on the other hand, quite enough assurances of fidelity, more precisely, loyalty to the "senior" partner--the United States--and readiness to abide by the commitments assumed by Bonn, in respect of the "star wars" program included.

Despite statements concerning an aspiration to cooperation with the East European countries, primarily the USSR, the foreign policy section of the CDU's election program essentially testifies to a departure from the principle of continuity in the Bonn state's "Ostpolitik". Under pressure from F.-J. Strauss, leader of the CSU, and figures from the far right grouping of the ruling coalition called "steel helmet" (the name speaks for itself), the program has included revanchist propositions questioning the territorial-political realities in Europe and once again raising the "German question".

But even such a pronounced shift to the right recorded in the party program has satisfied far from all figures of the CDU/CSU bloc. The results of the Soviet-American meeting in Reykjavik and the discussion which has developed around them in the FRG have brought about a deepening of the contradictions in the ruling coalition on most important foreign policy issues. While a number of its figures, primarily H.-D. Genscher, leader of the free democrats, are speaking of the need for a continuation of constructive negotiations for an end to the arms race and a lowering of the level of military confrontation, the supporters of a hard line headed by Chancellor H. Kohl and Defense Minister M. Woerner are expressing "fears" that any progress toward accords between the great powers in this sphere could harm the FRG's security and compel it to revise its foreign policy. In their opinion, what happened in Reykjavik jeopardized the very possibility of the achievement of specific disarmament agreements, and in the current situation the sole possible modus operandi for the FRG, it is said, is the utmost development and intensification of military relations with Washington, within the framework of the SDI included. Since the Soviet-American meeting there has been an increase in the number of hostile attacks on the USSR and world socialism as a whole on the part of high-ranking Bonn figures, including Chancellor H. Kohl. In an interview with the American magazine NEWSWEEK the head of the federal government went as far as to draw a parallel between our country and Nazi Germany.

Bonn's official position on questions of disarmament and Soviet-West German relations is being sharply assailed on the part of the opposition parties, including the leading one--the SPD. This was shown graphically by the work and the decisions of the party's special election congress held at the end of October in Offenburg. Never before in the history of the FRG, perhaps, had the West German social democrats advanced such a precise foreign policy program corresponding to the real problems of the present-day world. "The time has come," it says, "to halt the insanity of an acceleration of the arms race and embark on implementation of phase two of the policy of detente." According to

the SPD, it should contain four most important elements: the elimination of nuclear and chemical weapons in Europe; stabilization of the correlation of conventional arms at an equal, low level; a broadening of economic relations between the West and East Europe; promotion of cultural exchange to preserve and strengthen the cultural unity of Europe.

The social democrats also support the conclusion of an agreement between NATO and the Warsaw Pact in which both sides would undertake not to be the first to use either conventional or nuclear weapons. In the event of its taking office, the SPD promised to annul the agreement on the FRG's participation in the SDI project and to fight plans for implementation of a European "star wars" program. "The Reykjavik meeting showed," J. Rau, SPD candidate for the chancellorship, declared, "that an agreement on the complete elimination of medium-range missiles and a 50-percent reduction in the arsenals of strategic arms of both sides can be reached and a halt to nuclear testing can be negotiated. But these opportunities were blocked in Reykjavik by the position of the United States, which was unwilling to abandon its SDI program. SDI is the way toward an arms buildup, and therefore this is not our way." Having proclaimed as the SPD's most important foreign policy goal "the creation of a European peaceful order which goes beyond the framework of blocs and ultimately surmounts them," the congress appealed to the FRG population to make the coming elections a national referendum on disarmament and security issues.

The correlation of forces in the country on the eve of the elections is determined to a considerable extent by the positions of another party of the left--the "Greens". At its congress in Nuremberg (26-28 September) it declared as a priority of its activity struggle against mass unemployment, poverty and environmental pollution. The financing of the corresponding measures, the Greens believe, should be secured thanks to the abandonment of "ecologically harmful and economically useless government appropriations". The party program as a whole rejects the logic of economic development imposed on society by big capital. At the same time, however, serious differences between the two main factions of the party--the "realists," who consider it essential to explain to the electorate why precisely the Greens need its vote, and the "fundamentalists," who continue in principle to reject any political alliances with the "traditional" parties--were once again manifested distinctly in the course of the congress. Following pointed discussion, the majority of delegates supported the possibility of future cooperation with the social democrats.

The approach of parliamentary elections is being felt in Great Britain also. Although the timing thereof has not been announced, the country's main political parties have in fact already joined the election struggle. Such an early start is connected not least with the sharp fall in the prestige of the ruling Conservative Party and its leader, M. Thatcher. Despite this, the Conservative Party conference held 7-10 October in the resort city of Bournemouth confirmed that the Tories have no intention of making adjustments to their domestic and foreign policy. The plans for the continued modernization of nuclear arms, Great Britain's continued NATO membership and the utmost strengthening of allied relations with Washington remain the most important principles of the military and foreign policy of the Tory

government. During its term in office military spending has increased 20 percent in real terms, 59 new warships, including 10 submarines and 12 frigates, have been commissioned, and the army has acquired new types of tanks, armored personnel carriers and ordnance, and the air force, 500 new aircraft, half of which are the modern Tornado fighter bombers.

In spite of the good wishes which the British Government lavished prior to the meeting in Reykjavik, the conservatives by no means intend abandoning plans for nuclear rearmament. "Our defenses," M. Thatcher declared after the meeting, "depend and will continue to depend on nuclear weapons."

It would seem that the Soviet proposal that the nuclear potentials of Britain and France not be counted in a reduction in intermediate-range missiles has been seen by their ruling circles as recognition of some "privileges" for these countries.

Of just as clearly expressed an antipopular nature is the Conservatives' socioeconomic policy. Providing for the high profits of private business, the transfer to the monopolies of individual state-owned enterprises and whole sectors of industry and "strict economies" in the urgent needs of the broad working masses remain its main goals. Since 1979 the Tory cabinet has denationalized approximately 20 of the biggest corporations, including such well-known ones as British Telecom, British Aerospace, and Vickers Shipbuilders. British Gas, British Airways, Rolls Royce and other major state-owned corporations will be transferred to private hands in the very near future. The Labor Party believes that the Tories' socioeconomic program is not only leading to an exacerbation of the crisis of the national education system, health care and housing but also means a direct offensive against Britons' rights and freedoms.

In the Conservative Party itself, to judge by material of the British press, far from everyone supports this policy. A considerable proportion of Tory members of parliament is displaying manifest discontent with the strict "authoritarian" methods of intraparty leadership on the part of the prime minister. In the eyes of the malcontents or traditionalists, as they call themselves, the best outcome of the election would be one where none of the major parties gained a sure majority and the Conservatives had an opportunity to participate in a coalition government, but without, of course, M. Thatcher as its head.

The Labor Party remains, as opinion polls show, the conservatives' main rival. What kind of policy does this party intend to pursue in the event of it assuming office? An idea is given by the resolution of the 85th annual conference, which was held in Blackpool at the end of September-start of October. It was distinguished by an endeavor to determine the main program goals more precisely than in the past and achieve unity of views on the most important issues.

A special place at the Labor Party forum was occupied by the debate on questions of military policy. The speeches of many delegates contained sharp criticism of the United States' role in NATO and also demands for Britain's withdrawal from this military bloc. A number of local organizations submitted

for the conference's examination 14 such resolutions altogether, which at the time of the voting were reduced to a separate comprehensive resolution. It speaks of the incompatibility of Labor Party policy of a nuclear-free defense and membership of the North Atlantic alliance. Adoption of the resolution was opposed by party leader N. Kinnock and D. Davies, defense secretary in the "shadow cabinet". They emphasized in their speeches that NATO was a "guarantor of peace" in Europe and that Britain's security interests were connected, as before, with membership of the alliance. The position of the party leadership was reflected in the results of the voting: the resolution was rejected by an overwhelming majority (by a ratio of 5:1). Despite this, according to THE TIMES, "Labor's proposed program in the defense sphere represents a set of the most radical reforms of the country's military policy ever presented by the Labor Party."

The cornerstone of this program is the principle of Great Britain's nonnuclear defense. The Labor Party has undertaken in the event of it assuming office to remove the American nuclear missiles from the country, gradually remove the Polaris missiles constituting the basis of Britain's so-called "independent nuclear deterrent force," cease work to fit the submarine fleet with the Trident system and cancel the Anglo-American "Memorandum of Understanding" providing for Great Britain's participation in the American SDI program.

Threats warning that fulfillment of merely part of such a program could lead to the "disintegration of NATO" and a crisis of the entire system of the West's defense were not slow in coming from Washington. These threats evoked justified anger in the country. In the opinion of N. Kinnock, Washington undertook such a demarche at the request of the Conservative leadership, which is seriously concerned at the rapid rise in the Labor Party's popularity. It is difficult to say how consistently the adopted resolutions on defense policy would be implemented in the event of the party coming to power. But it is obvious that the position occupied by the Labor Party reflects the mood of broad strata of the population and, granted all the possible adjustments, the party leaders will be forced to take stock of this mood.

The conference sharply criticized practically all aspects of the Conservative government's socioeconomic policy. Its delegates expessed the greatest concern in connection with the unprecedented growth of unemployment encompassing, according to official figures, 3.3 million persons, the recession in the manufacturing sectors of the economy and the chronic lags in the systems of education, public health and social security behind the needs of society. The socioeconomic difficulties have brought about unprecedented poverty and an eruption of crime and drug addiction, which have become a truly national disaster. The Labor Party counterposed to the "austerity" concept being implemented by the Tories a whole set of measures pertaining to the expansion of capital investments in the most crisis-ridden sectors of the national economy and social services. They undertook within 2 years following their assumption of office to have reduced the army of unemployed by 1 million. M. Meacher, minister of social security in the "shadow cabinet," promised that a future Labor government would spend approximately 6 billion pounds sterling on the construction of new schools, hospitals, kindergarten and homes for the elderly and also increase unemployment compensation, retirement pensions and assistance to single parents and mothers with large families.

Important issues touched on at the conference were the Labor Party's relations with the unions and future labor legislation, which is to replace the anti-union enactments of the Conservatives' term in office. The conference of the British Trade Unions Congress, which was held shortly before the Labor Party conference, unequivocally declared that a future government could count on the support of the organized workers only if it accommodated their interests.

As a whole, the socioeconomic section of the Labor Party program is sustained in a spirit of "new realism" and reflects the aspiration of Great Britain's biggest opposition party to appear to the electorate as a responsible force capable not only of radical reforms but also a "realistic assessment of available resources". In the opinion of many British observers, this Labor Party conference was the most successful for many years. Its overall frame of mind and its reluctance to make to the electorate too hasty and ill-considered promises in the socioeconomic sphere show that the party leadership is approaching the replacement of the Conservatives in power with all due responsibility.

As distinct from the FRG and Great Britain, the resurgence of political life in France last fall was not directly connected with elections, the closest of which--presidential--will be held, in the event of observance of the political timetable, no earlier than the spring of 1988. However, the situation which evolved following the March 1986 parliamentary elections and which is characterized by the "cohabitation" of diverse sociopolitical forces makes the political process hard to predict and abounding in surprise turns. The key figures of the "cohabitation"--President F. Mitterrand and Premier J. Chirac--have been forced to seek the solution of numerous problems on the basis of compromise approaches, preventing a disturbance of the fragile balance in the correlation of forces. Neither the state of public opinion, the majority of which is attuned to the tranquil continuation of the "cohabitation" until 1988, nor the actual tasks of state administration afford either of these political leaders an opportunity to move to exacerbate the situation and break with his partner. French observers agree that the state leader venturing upon such a step now would be giving up his career of his own accord.

It is easiest for F. Mitterrand and J. Chirac to find a common language in the sphere of military and foreign policy. This is explained not only by the significant shift to the right of the socialists' positions in this sphere while they were in office, which prepared the ground for the relatively painless "changing of the guard" in the ministries of foreign affairs and defense. As distinct from the other developed capitalist countries of Europe, there is in France virtually a national consensus on the most important foreign policy and military issues. Of the major political parties today it is only the French communists, perhaps, who occupy positions in these fields different from the others.

Following the meeting in Reykjavik, Paris officially confirmed adherence to the former precepts, which are manifestly contrary to the urgent tasks of disarmament and detente both on the European continent and throughout the world. While having advocated a continuation of the Soviet-American disarmament negotiations, President F. Mitterrand emphasized that France did

not intend at this stage associating itself with this process and changing its positions. Essentially F. Mitterrand prefers as yet not to pronounce definitely on this score, of which the government of the right has availed itself. In a speech following the meeting in Reykjavik J.-B. Raymond, the new minister of foreign affairs, called on his "American friends for an extended analysis of the consequences and risk of nuclear disarmament."

The arguments which Paris is advancing against accords in this sphere echo those of the right wing of the CDU/CSU in the FRG and amount to the fact that "any negotiations leading to the total elimination of American nuclear weapons in Europe without a parallel reduction in the existing inequality in conventional and chemical weapons would represent a threat to the security of our continent." The French Government has not retreated one iota from the plans for modernization of the nuclear potential and a conventional arms buildup. The budget for 1987 anticipates a 6.9-percent growth in military spending compared with the preceding year. Not confining itself to a buildup of nuclear and conventional arms, Paris intends supplementing them with chemical weapons. France's negative position on the entire set of problems of disarmament remains an obstacle in the way of progress in this field.

As far as domestic problems are concerned, the "cohabitation" here is proceeding far from smoothly. The fall of 1986 was marked by specific new government measures aimed at infringing the French's democratic rights and winding down or adapting to the needs of the ruling majority the reforms which were implemented in the first half of the 1980's. Thus upon assuming office the forces of the right not only sought a return to the simple majority vote system canceled by F. Mitterrand in 1985 but also pushed through the National Assembly a law to recarve constituency boundaries. The goal pursued here was the creation of more favorable conditions for candidates of parties of the right at all national elections. Constituencies which were hitherto "bastions" of the left and, primarily, the Communist Party, have now been artificially combined with bourgeois, prosperous neighborhoods and communes which have traditionally voted for the right. The right has tried with a single legislative enactment to destroy the support bases of PCF influence which the latter had created over decades. The antidemocratic, unjust nature of this enactment was so obvious that J. Chirac had yet again to resort for passage of the bill to a special parliamentary procedure, linking this question to a vote of confidence in the cabinet.

French political scientists view what has happened as a serious defeat for F. Mitterrand and the forces of the left and are speaking of the danger of a concentration of the whole of the political initiative in the hands of the premier and the parties of the right. It is hardly possible to agree unreservedly with this assertion. The president, who is now enjoying exceptionally great popularity, still has many resources of which he can avail himself a suitable moment, to turn around the course of the political process. A national council of forces of the left, which incorporates, apart from the socialists, left radicals, ecologists, left Gaullists and a number of other democratic organizations, has been formed under the aegis of the Socialist Party. Observers believe that the socialists are thereby attempting to create

as broad a political and ideological base as possible for the struggle for a return to power. For his part, J. Chirac is also preparing the ground for a decisive battle for the presidency in 1988.

In the socioeconomic sphere the government of the right majority is continuing, in accordance with its precepts, a policy of the utmost encouragement of private capital and the granting to it of new allowances and privileges. Simultaneously it intends cutting expenditure on social needs, culture, education and the social security system.

This policy is encountering the increasingly decisive resistance of the workers. In accordance with an appeal of the PCF, the CGT and other democratic organizations, a day of action against dismissals, enterprise closures and the offensive against the people's democratic rights was held on 21 October throughout the country.

In the first half of December the capital was the scene of mass student protests aimed against the project for the reform of higher education which had been drawn up by the government. It envisaged increased tuition fees, considerably reduced admission to higher educational institutions and other measures increasing social discrimination in the higher education system. The students' demonstrations were accompanied by clashes with the police, as a result of which hundreds of people were injured and one person was killed. The protest of student youth was supported by the majority of left and democratic organizations. An immense demonstration in defense of rights and liberties, the right to education included, took place in accordance with their appeal in Paris on 10 December. The government, to whose prestige these events administered a strong blow, hastened to announce the resignation of the minister of education and "postponement" of discussion of the project in parliament.

If we glance at the whole panorama of political processes in the developed capitalist countries, the stimulation of conservative and militarist forces has to be noted. Here is a sufficiently eloquent example. Tokyo has officially announced its consent to associate itself with the preparations for "star wars," adjusting both declarations made earlier and the opinion of its own people.

We encounter here not only leaders' lack of political responsibility but also an absence of unity in the ranks of the forces called upon to counter the dangerous militarist turns. All the more pertinent was the appeal from Delhi for a unification of efforts to remove the main danger--the thermonuclear destruction of civilization. This is a general interest.

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CEMA STATES' S&T INTEGRATION PROGRAMS DESCRIBED

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 105-110

[Article by V. Kapitonov and Ch. Yordanov: "Integration of the Socialist Community Countries in the Sphere of Science and Technology"]

[Text] The congresses of the communist and workers parties of the CEMA countries determined a strategic course toward an acceleration of socioeconomic development. This makes qualitatively new demands on the choice of directions and forms and methods of implementation of S&T progress as the decisive factor of realization of this course. The base for ensuring the steady growth of the economy is a fundamental increase in its efficiency by way of the broad-based application of progressive equipment and technology, an improvement in the structure of social production, the rational use of fixed capital, a rise in the technical standard, quality and competitiveness of the products and a broadening and renewal of their selection.

The Plan of the USSR's Economic and Social Development for 1987 allocates R30.8 billion for scientific research, which is 6.3 percent more than the appropriation for 1986. They will be concentrated in the priority areas of S&T progress producing the highest savings. The plan determines targets pertaining to the assimilation of fundamentally new technology such as laser, plasma and membrane; and production engineering processes based on the use of ultrasound and high pressures. The manufacture of computer facilities will increase 19.5 percent instead of the 16 percent envisaged by the 5-year plan (1).

The documents of the 27th CPSU Congress attach special significance to the "consistent unification of the efforts of the fraternal countries in the key areas of intensification of production and acceleration of S&T progress for the joint accomplishment of a task of historic significance--arrival at the foremost boundaries of science and technology for the purpose of a further growth of the well-being of all peoples and a strengthening of their security."

I

The socialist community of CEMA countries represents a most dynamically developing complex, which in terms of the per capita manufacture of many types of industrial products is superior to the developed capitalist states. The CEMA countries' national income from 1950 through 1984 increased ninefold, that of the developed capitalist countries, by a factor of 3.5. Industrial production grew by factors of 14 and 4.1 respectively (2).

The CEMA countries account for approximately one-third of the world machine-building product, more than 21 percent of the electric power generated in the world, 23 percent of oil and gas condensate, 29 percent of coal and 40 percent of natural gas. The socialist community has one-fifth of the world arsenal of new equipment and technology patents.

A most important landmark in the development of the international socialist division of labor was the top-level CEMA Economic Conference (1984), which inaugurated a new stage in its mutual relations. As observed at the 27th CPSU Congress, in the next few years on the basis of the congress' decisions "a big step forward has to be taken in the development of socialist integration and the extensive cooperation and specialization of production intensified on the basis thereof. Such a path affords new prospects for the continued and all-around expansion of economic relations between the fraternal countries and the accelerated accomplishment of the task common to us all of intensification and increases technical-economic invulnerability to imperialist actions."

All the most important tasks confronting the CEMA countries at the current stage of the building of socialism and mutual cooperation are closely linked with science and technology. V.I. Lenin emphasized that socialism is impossible without equipment built per the last word in science (3).

The transition of the socialist countries to a predominantly intensive path of development of the national economy and the needs of a sharp rise in the technical and engineering standard of social production based on the accelerated creation and application of the latest S&T achievements in practice, bring about the need for the formulation and pursuit of a concerted and, in certain spheres, common S&T policy within the CEMA framework. This is a principal means of the concentration of the scientific and production potentials of the community countries in the key areas of S&T progress for the purpose of the efficient assimilation of new generations of highly productive equipment and technology for the rearmament of all sectors of the economy.

An objective prerequisite giving rise to the need for a concerted S&T policy and at the same time creating the conditions for its formation and implementation is the community of the socialist community countries' policy of an acceleration of socioeconomic development by way of assimilation of the latest achievements of science and technology. To the most important common tasks confronting the CEMA states in this field pertain savings of energy, fuel, raw material and intermediate products by means of the creation and introduction of resource-saving equipment and technology and new materials; a reduction in the proportion of manual labor predominantly thanks to automation and mechanization and the application of computers and flexible automated

manufacturing systems; the extensive use of biotechnology in various sectors of the economy; development of nuclear power; the solution of ecological problems; and others.

There is also a number of other objective factors, which require the purposeful interaction of the CEMA countries within the framework of concerted S&T policy. These include the current level of internationalization of social reproduction. As the international socialist division of labor expands and intensifies, there is increased significance in and additional material conditions are created for the interaction of the national S&T complexes.

Besides, the relative reduction in the role of extensive factors of economic growth and the complication of the raw material, energy and demographic problems are insistently dictating the need for an intensification of the economy, primarily on the basis of S&T progress, which is making increased demands on the science sphere. Importance is attached to the question of an improvement in the organization of scientific activity and the management thereof. Catering for the due level of R&D in all areas is a highly complex task for one country. All this makes for increased interaction of the socialist states' S&T potentials for joint development, creation and broad-based introduction of S&T results in the national economy.

An important factor of integration is the increase in the costs of R&D, particularly that which exerts a revolutionizing influence on the development of the productive forces. Major S&T breakthroughs demand the mobilization of considerable financial resources. They entail, as a rule, a restructuring of the production machinery, and in a number of cases, the development of new works and whole sectors and profound changes in the structure of the economy.

Take, for example, the problem of harnessing thermonuclear energy based on laser synthesis. The benefits of this method of obtaining energy may be demonstrated by the following figures. The conventional 1 million-kwt steam power plant consumes 2.1 million tons of coal (or 10 million barrels of oil) a year, and a nuclear power station of the same capacity, 30 tons of uranium ore, but a thermonuclear power station, 600 kg of thermonuclear fuel.

But harnessing thermonuclear energy and creating the first laser power station will take, according to current estimates, $30-50 billion. Thermonuclear power engineering will be profitable when approximately 10 to the fourth power billion dollars have been invested in it, and this will require a tremendous amount of work (approximately 500 million man-years). Such a far-reaching transformation of the world energy system cannot be accomplished without the international cooperation of scientists and specialists (4).

The current stage of the S&T revolution is characterized by increased dynamism. An appreciable proportion of applied R&D is out of date by the time of its completion even. Under such conditions the concentration within the framework of the international division of labor of S&T potentials on problems of mutual interest is an urgent necessity inasmuch as it makes it possible to shorten considerably the "science--technology--production" cycle.

The consistent accomplishment of this task will depend on many conditions. They include the development of production and S&T cooperation and opportunities for an expansion of the direct relations of national research and economic organizations and the formation of joint firms and other forms of amalgamation of socialist countries' resources. It is a question of creating not only the material but also the organizational-legal prerequisites contributing to a stimulation of S&T cooperation.

No less a role belongs to the mutual adaptation of management systems for the economy. This occurs on the basis of consideration of the progressive trends and directions of an improvement in the management of the national economy, of S&T progress included.

Together with those which have been mentioned there are also other, external, factors which give rise to the need for the formation and pursuit of a concerted S&T policy. Their influence on the economy of the CEMA countries has been increasing in recent years. Thus importance is attached to the problems of securing technological independence under conditions where certain capitalist states, primarily the United States, are adopting discriminatory measures, including the exchange sphere, in respect of the socialist countries. Thus the tasks confronting the socialist community countries pertaining to a solution of the key problems of S&T progress may be tackled effectively only by way of pursuit of a concerted policy in the field of science and technology.

II

The essence of the CEMA countries' concerted S&T policy should be understood as a system of collectively determined goals and priority directions of the plan-oriented development of science and technology and also the ways and forms of achieving the said goals based on the international socialist division of labor. This policy is geared predominantly to the preferential development of fundamental research into the pioneering directions of S&T progress; the accelerated joint assimilation and broad-based effective use of progressive achievements for the accomplishment of strategic economic tasks; a rise in the technical standard, quality and competitiveness of the products, for an increase in export potential and a strengthening of technical-economic independence included.

A concerted policy should not be regarded as a simple sum total of all directions and spheres of research activity. It is shaped with regard for mutual interests and use of the advantages of the international division of labor, proceeding from the specific choice of priorities on whose basis the national "science--technology--production" complexes are created. A concerted policy affords all the community countries an opportunity to make practical use of S&T solutions and new technology and products with regard for the existing differences in the levels of S&T and economic development.

In the long term such a policy, which is organically linked with tasks of the socialist states' socioeconomic development, will form the basis of their joint planning activity and will determine the structural changes in the economy of individual countries and the community as a whole. The

Comprehensive Program of the CEMA Countries' S&T Progress up to the Year 2000, which was formulated in accordance with a decision of the top-level Economic Conference (5) and which was adopted in 1985 by the CEMA 41st (Special) Session, is a practical step on the way to the formulation of such a policy and its implementation.

The program represents a concentrated expression of the strategic goals of the accelerated development of science and technology and determines the ways and means of achieving them. It is of a long-term, comprehensive nature and is oriented toward joint actions for the purpose of achieving the highest frontiers in the sphere of technology and the quality of manufactured products and a strengthening of the CEMA countries' engineering and technical-economic independence.

"The supertask of the present stage of economic cooperation has already been determined by the leadership of the fraternal parties and states," M.S. Gorbachev, general secretary of the CPSU Central Committee, observed, addressing the 11th SED Congress (April 1986). "It is S&T progress and production cooperation, primarily in machine building. The Comprehensive Program of the CEMA Countries' S&T Cooperation up to the Year 2000 is a high-quality document aimed at scaling the highest boundaries in terms of world yardsticks, but tremendous efforts are needed for its realization." The accomplishment of the tasks which have been determined in the program will contribute to at least a doubling of labor productivity as a whole before the year 2000 and a sharp reduction in the consumption of energy and raw material per unit of national income.

Proceeding from the need for concentration of the CEMA countries' forces and resources in the most important spheres of the S&T revolution, the program has determined five priority areas. They are the widespread use of electronics in the national economy; comprehensive automation, including flexible automated manufacturing; the accelerated development of nuclear power; new materials and techniques of their production and processing; biotechnology. In respect of the majority of these areas the CEMA countries had been cooperating before also, as a result of which modern computer facilities, including the common system of computers and their component facilities, equipment for nuclear powers stations, space technology and such had been created.

In the machine-building field, for example, cooperation was practiced in 1985 on the basis of 90 agreements and contracts governing the international specialization and cooperation of production (they encompass over 16,000 types and standard sizes of products) and 64 governing S&T cooperation, as a result of which more than 180 new products were created. These included industrial robots for servicing metal-cutting machine tools, forging-pressing equipment and machinery for die casting and painting, new types of rotary combines for cereals harvesting and so forth. More than 20 new modern techniques were developed. All this is making it possible thanks to increased reciprocal supplies to markedly reduce machinery and equipment imports from the capitalist countries.

As a whole the program incorporates 93 problems, in whose solution approximately 300 Soviet organizations and almost 1,000 of other CEMA

countries will participate. It will be realized on the basis of an interlinked system of agreements and contracts. Let us examine this in the example of a priority area of cooperation--electronics application in the economy.

Based on the comprehensive automation of production processes at "plants of the future" there will be a considerable increase in labor productivity and product quality. But computers compatible in terms of equipment and software--from big and high-speed through minicomputers--are needed to fit out such plants. In addition, dependable and standardized peripherals, without which computer technology cannot be used directly in the product design and production process, are essential. Standardized software programs, outlays on the development of which are growing rapidly, are required also. Communications systems providing for the possibility of the organization of collective-user computer systems and distinguished by high throughput are to be created. Finally, well-trained personnel capable of making efficient use of this equipment is necessary.

In short, a kind of pyramid of specific S&T and production tasks, on the accomplishment of each of which the success of the overall cause depends, is being erected. Attempts to tackle these questions autonomously would not only result in the waste of tremendous resources but would not produce the desired results. The experience of the collective development of the "Ryad"-series computers has shown that without a unification of their efforts the CEMA countries would not have had at their disposal the computer technology which they do and would have been forced to have imported it on a growing scale, but they have thus overcome not only price but also trade-policy barriers.

Today the program, which has developed into a system of interconnected agreements and contracts, has become the basis of S&T cooperation within the CEMA framework and a leading organizing principle of the further extension and improvement of cooperation and the development of socialist integration. General agreements on multilateral cooperation in the sphere of the creation and application of automated design systems and on the creation, production and operation of a common system of light guides and data transmission and a whole number of others have been signed and are being implemented. More than 80 operating agreements are being amplified. Approximately 400 completed developments were transferred to production in 1986, and approximately 80 percent of all contemplated developments will have been introduced in the 5-year plan as a whole (6).

III

Realization of the Comprehensive Program based on an interconnected system of S&T and production cooperation agreements and contracts presupposes the further development and extension of direct relations between the CEMA countries' S&T and production organizations. Their functional purpose is to promote the direct (and not via foreign trade organizations or enterprise commercial services) unification of the partners' production and S&T efforts for the accomplishment of common tasks and to ensure the most rational distribution of responsibility between the central departments and the direct participants in international cooperation (7).

Experience shows that direct relations are developing relatively successfully at the level of individual countries' ministries and departments. These state bodies are endowed with the right to enter into direct relations with the corresponding partners from other countries, which creates a sound base for an extension of direct interaction. At the same time the systems to manage science and technical progress in the CEMA countries are affording opportunities for the more extensive use of direct relations on the basis of agreements and civil-law contracts between the direct participants in international cooperation.

Under the conditions of the manifold increase in the volume of S&T relations, the extension of their planning horizon and the complexity of the problems being tackled, which are intersectoral, as a rule, the coordination of specific questions of S&T cooperation is practically impossible at the state level. Only the direct executants of individual stages of the general program can plan the process of joint work in all details. Consequently, their enlistment in the cooperation and the establishment of close direct relations between them have been brought about by objective need. This makes it possible to effect the interaction of countries' national economic complexes at the level of the basic economic component--the enterprises and production associations, including in the sphere of science and technology.

Among the most efficient new forms of S&T cooperation engendered by the practice of direct contacts at the level of the basic component is the creation of temporary scientist and specialist outfits. They are formed for tackling specific tasks and work in one of the countries involved in the cooperation until the end result is obtained.

The CEMA countries have organized on a multilateral basis 10 temporary international scientist and specialist outfits. The joint design bureau (USSR, GDR and CSSR) for the creation of equipment and transfer machinery for sheet-metal stamping may serve as an example. A result of its work was assimilation of the production of top-class pressing equipment fitted with automation facilities. The operating characteristics of this equipment were improved twofold given a simultaneous reduction in the designing time (9).

A higher degree of integration of S&T potentials is being manifested in the creation of joint research institutes, S&T associations and so forth. Among these we may cite the Soviet-Bulgarian "Interprogramma" Institute for the development of computer software systems. By 1985 labor productivity here was almost three times greater than the average indicator of related national organizations. The most intricate program systems are developed twice as fast (in 1.5-2 years on average). Approximately 90 various base systems have been handed over to the two countries' national program collections altogether (since the institute was set up in 1977). The economic result of the institute's developments for the Soviet Union is in excess of R3.4 per R1 of expenditure. For Bulgaria it is even higher.

The concept of head organizations advanced by the CEMA 41st Session is designed to contribute to the development of direct relations between the immediate executants of the assignments. These relations should contribute to the solution of priority S&T problems, the direct realization of joint

developments and the application of their results in production. The head organization is obliged as quickly as possible to organize interaction with the coexecutants in all the fraternal countries and direct the groups of specialists toward final production results corresponding to the best world achievements and the closest cooperation within the CEMA framework. To cater for the tasks entrusted to them the head organizations must possess a strong S&T and production base.

In accordance with the decision of the CEMA countries, the role of head organizations in all areas of realization of the Comprehensive Program has been entrusted to Soviet organizations. They include the intersectoral S&T complexes which are being set up. Their task is ensuring the conditions for the speediest possible use in the national economy of the results of fundamental and applied scientific research. For this reason they are being formed on the basis of a number of leading establishments and being furnished with sufficiently strong experimental-industrial facilities for honing new equipment and technology.

Thus, for example, the intersectoral S&T complex created on the basis of the Arc-Welding Institute imeni Ye. Paton has become the head organization for automated welding, surfacing, soldering and heat-cutting equipment; the Metal-Cutting Machine Tool Science-Production Association for the creation of various engineering flexible manufacturing systems; and the USSR Academy of Sciences General Genetics Institute for the development of gene engineering methods. The head organizations are endowed with broad rights in the sphere of the establishment and development of direct relations with CEMA partners and the mutual transfer of work results.

The Comprehensive Program also provides for the organization by interested countries of joint S&T and production associations and international engineering and process centers for the creation and production of new equipment, technology, materials and so forth. The concentration within the framework of a common organizational structure of research, planning-design, production, service and other types of activity affords extensive opportunities for an acceleration of S&T progress by way of the more efficient organization of research and a reduction in the time taken to manufacture models of new equipment, test them under industrial conditions and apply them in production everywhere.

Unification of work per the complete "science--technology--production" cycle enables the partners to reduce costs thanks to a reduction to the minimum of parallelism and duplication, creation of a joint material base of research (very costly, as a rule) and elimination of the disproportions in financial and resource support characteristic of the separate financing of science and technology and also thanks to the opportunity for the redistribution of financial and material resources between components of the cycle. Furthermore, broad prospects for the collective use of the progressive components of the S&T and production potential which exist in each country are revealed.

This form of cooperation is already being applied in practice. Thus two Soviet-Bulgarian science-production associations in the sphere of machine-tool building and industrial robotics have been operating as of October 1985. An

agreement was signed at the start of 1986 on the creation of the first joint enterprise in the practice of economic and S&T cooperation between CEMA countries for the manufacture of automotive electronics products. An agreement has been concluded on the formation of the "Interrobot" international science-production association. It has been given the assignment of developing robotics facilities based on a common S&T policy and unification and standardization for the purpose of ensuring the world level and high quality of the manufactured robots.

In the course of the CEMA 42d Session bilateral intergovernmental agreements were signed on questions of the development of direct production and S&T ties between economic organizations of the USSR and Bulgaria, Hungary, the GDR and the CSSR and also on joint enterprises and international associations and organizations.

S&T progress is objectively of an international nature. The problems connected with it require the efficient mutually profitable cooperation of all countries. In this connection the Comprehensive Program of S&T Progress also provides for the cooperation of states with different social systems. It is essential to subordinate such cooperation to peaceful purposes, impart to it a global nature and direct the available huge resources and scientific potential toward the good of all peoples.

The program is open for association therewith of any country sharing the principles and goals of its realization. It observes that the socialist community is prepared on an equal and mutually acceptable basis to cooperate with all interested states. Such cooperation has a humane, peaceable thrust and corresponds to the goals of the United Nations.

According to specialists' estimates, 25 percent of research associates throughout the world are employed in the military sphere. Forty percent of the appropriations for R&D has been spent in this sphere in the postwar period. Scientists engaged in study of the influence of S&T progress on socioeconomic development believe that had these tremendous resources been invested in the development of science and technology in the interests of man's well-being, the world would now be living at the level of the year 2000 (10).

The Comprehensive Program of S&T Progress is a program of peaceful creation in the name of man. The successful realization of the assignments set therein will ensure the socialist community countries' arrival at the foremost boundaries of science and technology in all areas. Their accelerated development is a determining factor of an intensification of the fraternal countries' economy.

FOOTNOTES

1. IZVESTIYA, 18 November 1986.

2. "CEMA Statistical Yearbook," Moscow, 1985, p 7.

3. See V.I. Lenin, "Complete Works," vol 36, p 381.

4. MIR NAUKI No 1, 1984, p 20.

5. For more detail see MEMO No 2, 1986, pp 32-41.

6. SOTSIALISTICHESKAYA INDUSTRIYA, 13 February 1986; PRAVDA, 4 November 1986.

7. See Yu.S. Shiryayev, "The World Economy: New Technological and Socioeconomic Factors of Development," Moscow, 1984, p 205.

8. EKONOMICHESKOYE SOTRUDNICHESTVO STRAN-CHLENOV SEV No 1, 1985, p 70; No 9, 1985, p 40.

9. Ibid., No 11, 19183, p 10.

10. MIR NAUKI No 3, 1984, p 6.

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BOOK ON SOVIET FOREIGN TRADE WITHIN CEMA REVIEWED

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 135-136

[V. Grinev review: "At the New Stage of Integration"]

[Text] Upon familiarization with this book (*) with an unsensational title altogether inducing a sense of lengthy columns of figures and deliberation on what has already occurred the reader discovers with satisfaction, however, new ideas or those which have a new ring in seemingly long-studied fields. The monograph in question is important primarily in that the authors, scholars of the USSR Academy of Sciences Economics of the World Socialist System Institute, attempt to find (while nonetheless sometimes paying tribute to the evolved stereotype of the presentation of such material per the "all is well" principle) answers to the questions raised by the 27th CPSU Congress connected with the need for the creation of a new mechanism of the CEMA countries' economic cooperation. As M.S. Gorbachev, addressing the 11th SED Congress, emphasized, "it is essentially a question of a new economic mechanism of cooperation. What is needed here is bold experimentation and efforts to surmount bureaucratic and departmental barriers and outdated stereotypes of thinking...."

One answer, it may be said, is contained in the first chapter. The "integration trade" concept is introduced here. It encompasses a special category of trade between the partners evolving "from their commodity exchange in respect of fulfillment of commitments per international production specialization and cooperation agreements and agreements on the joint construction of large-scale national economic facilities" (p 19). The scholars believe that the emergence of a new kind of trade and the level of its development is an important indicator of the degree of interaction of the national economies and the depth of production relations. Its functioning presupposes "improvement of the existing commodity-money mechanism" (p 22), to which the next three chapters of the work are devoted.

Disclosing the trends and singularities of the USSR's commodity exchange with the fraternal countries in the past decade and the first half of the present, in the second chapter the authors do not confine themselves to a description

thereof but attempt to ascertain the actual reasons for the development of such commodity exchange with regard for the change in the domestic and external conditions of cooperation.

As is known, a new situation emerged on the frontier of the 1980's in the economy of the socialist community states and their reciprocal cooperation as a whole and in trade with the USSR in particular. The transition to an intensive path of development coincided in time with a considerable deterioration in external economic and political conditions, primarily the endeavor of imperialist circles to use economic relations with the socialist partners for selfish political purposes.

While thoroughly describing the development trends of the Soviet Union's trade with the CEMA countries as a whole and each of them individually, the Economics of the World Socialist System Institute specialists clearly distinguish the general and the particular in this process. An obvious merit of this chapter of the book is seen in the fact that on the one hand it may be regarded as a very useful reference book on the dynamics and structure of the USSR's foreign trade with states of the socialist system and, on the other, as a sufficiently comprehensive study of problems which have yet to be conclusively resolved.

Thus full use is not being made, the authors believe, of the possibilities of streamlining export-import relations between the USSR and the fraternal countries. The transition from the evolved customary model of "raw material commodities--finished products" exchange to the new model corresponding more to current conditions of "enriched raw material, finished products--finished products" is proceeding with difficulty (p 31). This is largely connected with the insufficient competitiveness of Soviet machinery and equipment and the underdevelopment of production, particularly S&T, cooperation (ibid.).

The existing difficulties in the financing, resource support and reciprocal linkage of individual forms of cooperation, the work justifiably observes, are explained by shortcomings of its economic mechanism.

The scholars concentrate attention on an analysis of these shortcomings and, what is valuable, on determination of the ways to overcome them. They attach paramount significance here to an improvement in commodity-money instruments of integration.

Thus the section devoted to pricing in the fraternal countries' reciprocal trade convincingly reveals the regularities of the movement of contract prices over the last 10 years. While evaluating positively, as a whole, the practice of the use of world prices and the so-called "sliding base" the authors at the same time by no means make a fetish of the latter and do not regard them as the sole basis for the establishment of contract prices given once for all. It is correctly observed, we believe, that in connection with the more active involvement in the cooperation process of individual economic organizations the price mechanism should develop in the direction of greater flexibility and elasticity. Such an evolution is connected in the book with the spread of the practice of contractual pricing, which provides for the direct participation of the economic subjects in the establishment of a foreign trade price,

proceeding from their direct interests (p 66). Under these conditions contract prices, together with the impact of the world price on them, are beginning to experience to an increasingly great extent the influence of the expenses of the exporter and the demand of the importer.

We may, perhaps, agree with the authors that a reallocation of pricing authority between the said subjects at the macro- and microlevels will be essential given the enlistment of enterprise outfits in the elaboration, adoption and implementation of integration decisions. It is also right here that "the significance of rational centralized control of the movement of prices and a flexible policy of their regulation on the part of the central management authorities objectively increases" (p 67). Having drawn this conclusion, however, the Economics of the World Socialist System Institute specialists should, we believe, have outlined the paths and forms of realization of such a policy.

The section which investigates complex questions of determination of the efficiency of the USSR's foreign trade with CEMA countries is interesting. As is known, much remains a subject of debate here. The book skillfully and correctly expounds the various positions on this question and also puts forward highly interesting propositions of a methodological nature. Opinions on the role of the comparative costs principle should be grouped here. We can agree with the authors that "from a prerequisite of the international division of labor it is becoming the result of the consciously organized international specialization of production" (p 69). At the same time we would note that, granted all the importance of the elaboration of a procedure suitably reflecting the dynamics of the economic efficiency of the trade in question, the reader should have been acquainted at least with what is the case in actual fact.

Undoubtedly of most interest from the viewpoint of both theory and practice is the concluding section of the monograph devoted to the role of currency and credit relations in the development of the Soviet Union's commodity exchange with the fraternal states. The dialectical interconnection between two levels--the efficiency of the currency-credit mechanism and the development of economic cooperation as a whole--is analyzed here. Specifically, it is rightly observed that as the cooperation itself develops and is comprehensively perfected, there will be an increase in the role of currency-finance relations as an "active economic stimulant of the development of integration, their reverse influence on the sphere of production will strengthen and be revealed in full and the significance of the currency-credit mechanism as a means of the more efficient fulfillment of the concerted plans of cooperation will increase" (p 82). As yet, however, judging by the adduced material, this "reverse influence" is inadequate.

The prospects of an increase in the efficiency of the currency-credit mechanism are linked in the work with an improvement in the "monetary properties" of the transferable ruble and the increased role of currency exchange rates in the foreign economic payments of the USSR and the CEMA countries.

We have to recognize as a definite service of the authors the fact that they analyze the problem of the currency exchange rate mainly not as a subject of academic debate but as a burning question of the actual practice of reciprocal exchange. Attention is attracted in this connection to the investigation of the results of the actual multiplicity of the transferable ruble's exchange rate in relation to freely convertible currencies. This is confirmed by the example adduced in the book of the conversion of the world oil price with the use of different exchange rates or currency coefficients (there is, it is true, imprecision of a purely arithmetical nature here not changing the conclusion, however) (pp 91-92).

Nor is the work in question free of a number of other shortcomings. Certain recommendations are not specific. It remains unclear, for example, how a common methodology of calculation of the transferable ruble's exchange rate in relation to convertible currencies should be constructed.

As a whole, however, the monograph represents an interesting, largely innovative study. It will, I believe, attract the attention not only of specialists but also broad circles of readers interested in problems of the socialist countries' economic cooperation.

FOOTNOTE

* "Vneshnyaya togrovlya SSSR so stranami SEV" [The USSR's Foreign Trade With CEMA Countries]. Exec. ed. V.M. Shastitko, doctor of economic sciences, Moscow, "Nauka", 1986, pp 111.

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BOOK ON CEMA-EEC ECONOMIC COOPERATION REVIEWED

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 137-138

[Yu. Shishkov, Ye. Yakovleva review: "In the Name of Peace and Good-Neighborliness"]

[Text] The book in question (*) is a comprehensive study of the economic factors and forms of the interaction of East and West Europe: from purely trade relations through industrial and S&T cooperation, from bilateral economic contacts through integration processes within the CEMA and EC frameworks and from an analysis of specific-economic problems through reflections on the degree of compatibility of the planned and market economies in the course of the economic communication of countries with different social systems. The work is also distinguished by its broad time frame: from the imposition in Soviet Russia in 1918 of the foreign trade monopoly and its first economic contacts with the West in the 1920's-1930's through the present day. It also contains certain forecasts for the future.

Inasmuch as international economic relations have in recent years been characterized by ever increasing politicization, much attention is paid to political questions. The persistent confrontation of the forces of peace and good-neighborliness on the one hand and the forces of bellicose anticommunism and militarism on the other is shown on the basis of a large amount of factual material. The author traces the course of this struggle from the end of the 1940's through our day and the "thawing" and "cooling" of the political climate on the continent, including the sabotaging of European security undertaken in the 1980's by the present Washington administration and the peaceful counteroffensive of the Soviet Union and the other Warsaw Pact countries.

There has been an appreciable complication in recent years in the conditions for East-West economic cooperation as a result of the aggressive foreign policy of the United States and the discriminatory foreign policy course of a number of Western powers and the general deterioration in the political climate. Nonetheless, Yu. Krasnov rightly believes that this situation is not irreversible: relations between states of the two systems have sunk

sufficiently deep roots to withstand the "cold winds" from across the Atlantic. "Detente is alive," he writes, "and peace and good-neighborliness in Europe are the future, whatever yesterday's forces may do!" (p 43).

Switching subsequently to economic factors in the development of the system of economic relations between capitalist and socialist countries, the author deals with the S&T revolution, the internationalization of economic life and the general crisis of capitalism and also a number of structural crises being experienced by Western countries. Unfortunately, all these processes are illustrated in the work superficially and without any serious connection with East-West problems. Thus speaking of the impact of the S&T revolution--and this is undoubtedly a most important condition of the development and extension of mutually profitable all-European cooperation--the scholar confines himself to the following argument: it is intensifying the competitive struggle on the world capitalist market and thereby compelling the "establishment" of various forms of cooperation between countries with different social systems (p 51). It is as if there were not more serious reasons for both sides' objective interest in an extension of the division of labor in the sphere of R&D and at the same time such acute problems as the imperialist powers' "technological blockade" of the socialist countries. As far as competition on the world capitalist market is concerned, it is intensifying even without the S&T revolution--as a consequence of cyclical and structural crises and other factors.

The book studies the integration processes within the CEMA and EC frameworks and also questions connected with the prospect of the establishment of relations between them, and expresses the justified opinion that regulation of these relations would have a positive impact on all-European cooperation as a whole.

We would note in this connection that the author's assertion that socialist integration "is in terms of its goals and tasks fundamentally the opposite of the various types of capitalist integration" (p 61) does not entirely fit, we believe, actual reality. Any integration association is aimed at increasing the efficiency of social production in the participating countries by way of the creation of conditions more conducive to the division of labor and economic cooperation between them. CEMA and the EC differ in this sense not in goals and tasks but the methods of their realization and the social consequences of integration. Were their goals "fundamentally opposite," there would be no common basis for the cooperation of the two integration complexes, and any talk of the establishment of mutual relations between them would be simply pointless.

Analyzing in detail the formation and development of the monopoly on foreign trade and its role in the economic relations of states with different social systems, Yu. Krasnov shows the fundamental incomptability of the centralized planning and control of foreign trade transactions of the socialist countries with the market mechanisms of the Western partners. He exposes the inventions of bourgeois critics concerning the organizational principles of Soviet foreign trade and the corresponding policy of the Soviet Union.

Switching to questions of the development of economic cooperation between East and West Europe, the author shows together with its traditional forms (trade and credit-finance relations) new ones--industrial cooperation, compensation agreements and S&T relations--and describes the formation of new forms of the organizational-legal mechanism and the state and prospects of economic interaction between such major partners as the USSR and the FRG. He reveals the groundlessness here of the policy extensively practiced by Washington in recent years of economic sanctions and other attempts to thwart the normal and natural course of all-European economic cooperation, the main costs of which are being borne primarily by the capitalist countries themselves.

In evaluating the book in question it has to be noted that the breadth of coverage of the problems here is frequently detrimental to the depth of their analysis. It is also difficult to justify the excessively propagandist tilt. Today's reader will hardly be satisfied, for example, by the idyllic picture of total well-being and problem-free cooperation within the CEMA framework, as if there are no questions requiring solution nor can there be any. The problems arising in the course of East-West economic cooperation, primarily those which depend on the socialist countries themselves, have also been very much smoothed over, in our opinion. This applies primarily to the state of the organizational-legal mechanism, licensing trade and a number of new forms of industrial cooperation. The existence of such problems is indicated if only by the restructuring currently under way in our country of the forms and methods of foreign trade activity and the broadening of association and enterprise rights in the sphere of transactions with foreign agents.

The author interprets unjustifiably narrowly the concept of the organizational-legal mechanism of East-West cooperation, concentrating practically the entire attention on interstate treaty forms and intergovernmental mixed commissions. Yet a considerable role in the establishment of such cooperation is performed by national foreign trade institutes exercising overall leadership and supervision in this field, and it is on them that success largely depends.

Particular significance in international relations at the current stage is attached to the sphere of science and technology. Considering the growing role of East-West S&T and scientific-production interaction, more space could have been given the state of affairs and prospects in these spheres. The currency-credit aspects, equally, merit greater attention, I believe.

Nor is the book without certain inaccuracies. Thus page 173 says that joint enterprises of socialist and capitalist countries came to be developed for the first time in the 1970's, whereas they existed back at the dawn of the economic interaction of countries with different social systems and gained their second wind, as it were, in the last decade. The author also writes that various concessions and mixed industrial and foreign trade companies were liquidated in the mid-1920's (p 109). In fact their winding down should be dated end of the 1920's-mid 1930's.

We would note in conclusion that this work provides a comprehensive idea of all-European economic cooperation and will undoubtedly be useful to those interested in international economic relations.

FOOTNOTE

* Yu.M. Krasnov, "Yevropa segodnya i zavtra: problemy obshcheyevropeyskogo ekonomicheskogo sotrudnichestva" [Europe Today and Tomorrow: Problems of All-European Economic Cooperation], Moscow, "Mezhdunarodnyye otnosheniya", 1985, pp 280.

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BOOK ON CHANGING LABOR-MANAGEMENT RELATIONS UNDER CAPITALISM REVIEWED

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 139-140

[B. Dubson review: "Capitalism's Counteroffensive and Wage Labor"]

[Text] In line with the development of the productive forces, including changes both in equipment and technology and the main productive force--the aggregate worker--capital has been forced to make certain adjustments to the forms and methods of exploitation which it employs. The present stage of their evolution is characterized by the broad-based introduction of achievements from the S&T revolution given a simultaneous sharp exacerbation of problems in capitalist reproduction.

The study of practical innovations in the organization and streamlining of labor under the conditions of capitalism and also the critical analysis of the corresponding concepts of Western sociologists made by the author of the work in question (*) would seem highly pertinent in this connection.

E. Vilkhovchenko examines, albeit somewhat briefly, the genesis of the transition to the current stage of capitalist efficiency promotion. The factors which compelled the monopoly bourgeoisie to seek new, more efficient methods of exploitation include changes in the composition of the aggregate worker under the impact of the S&T revolution and the elevation of requirements and the appearance of new value orientations among the wage workers. The employers are also driven by directly economic motives. Their quest in this sphere has been determined, the book emphasizes, by concern for an increase in productivity, output quality and a reduction in shoddy work and complaints, which is so urgent in the atmosphere of intensification of the competitive struggle. "The struggle for quality has become an important national priority in the economy of each capitalist country" (pp 7-8).

Under the changed conditions the traditional methods of exploitation constituting the basis of Taylorism and its later modification--Fordism--are not only having increasingly less effect but in a number of cases are leading to perfectly obvious negative results: an increase in production costs in connection with considerable manpower turnover, a reduction in product quality and so forth.

The theoretical antithesis of Taylorism was initially the "human relations" doctrine, which was predominant in Western industrial sociology in the 1940's-1960's. Just like its modified version--the "new human relations" concept--it signified an undoubted step forward in the theoretical comprehension of the production role of the workman and labor motivation factors compared with Taylorism. At the same time this doctrine "was merely a psychotherapeutic adjustment" and "form of compromise with Taylorite practice and a means of neutralizing the workers' negative reaction to the fundamental principles of Taylorism" (p 34).

Further quest for effective means of an increase in labor productivity both in the field of theory and in practice is being conducted within the framework of a broad direction denoted by the not very precise "humanization of labor" concept affording scope for a varying interpretation. As the author observes, the latter could in a narrow understanding be seen as the introduction of new forms of organization of the labor process thanks to its suffusion with more creative and diverse content. In the broad sense what is meant by "humanization of labor" is a set of measures incorporating principles of the organization of production, physical conditions of activity, the planning of labor processes, forms of accounting, supervision and pay, measures in the sphere of vocational education and also attempts to democratize industrial management and so forth (p 3).

It is essential, in our view, to adopt a differentiated approach to an evaluation of the results of the "humanization of labor"--both theoretically and practically.

In the first case it may be noted that at the new stage of streamlining of production, Western theorists have broadened appreciably the number of factors of labor motivation being considered. Whereas in the Taylor system the object of influence was the individual workman, and in the framework of the "human relations" doctrine, so-called "small groups" distinguished by identical or mutually complementary functions, the "humanization of labor" presupposes the "enrichment" not only of individual but also group activity. Experiments within the framework of this direction have shown that there is a possibility in principle of the establishment of a new interconnection between the workman and the machine (given introduction of the principles and achievements of ergonomics, alternative technology and so forth).

As far as the actual result of the practical use of the new methods of organization of the labor process is concerned, an evaluation of them is made more difficult, we believe, by virtue of the heterogeneousness of the measures being implemented. Even in the simplest situations, when the latter amounted to an abandonment of the most odious components of Taylorism (time keeping, piece work), and given the complete or partial substitution for the production line of the work of autonomous groups, the results have not always been synonymous. This partly explains the fact that the reorganization of production to the nonproduction line organization of labor is as yet proceeding relatively slowly and has yet to assume, as the author acknowledges, mass proportions.

Western sociologists are encountering even bigger difficulties in their attempts to realize the "humanization of labor" concept in its broad interpretation. The varying level and, at times, contrasting nature of their ideas concerning measures to improve labor motivation may be noted. Many theorists discern here a means of overcoming the organic defects of capitalism and are advancing ideas in keeping with the "post-industrial society" theory. For example, management specialist G. Hofstedt equates the "humanization of labor" and the "third industrial revolution" being carried out by the employers and top management (p 53).

More cautious supporters of this concept evaluate the new principles of organization of labor not as a panacea for all social problems but as a specific instrument for the more efficient use of "human production resources". This approach to the "humanization of labor" may be defined as an attempt to increase labor productivity thanks to satisfaction of the workers' highest requirements, primarily the need for self-realization. Such methods as development of workers' independence, experiments with so-called "microdemocracy" and so forth are being linked with the stimulation of labor motivation.

The possibilities for the practical realization of "humanization of labor" methods are limited, specifically, owing to objective factors: the continuing considerable differentiation of wage workers in terms of the level of qualifications, education and the corresponding value orientation and the existence of millions of so-called "dead-end" jobs, where workers and employees are employed in uninteresting work. For this reason zigzags and a reverse movement even can be observed in the "humanization of labor" policy, particularly, as the book observes, since the crises of the mid-1970's and the start of the 1980's (p 53).

Unfortunately, this promising subject is not in this case duly developed. The author has simply not encompassed the latest trends. But they are very interesting and could entail an appreciable adjustment of the settled views on the evolution of forms of capitalist exploitation. Until recently it was believed that, granted all the fluctuations and zigzags and the preservation of elements of "prescientific" exploitation and also Taylorism, the bourgeoisie had been forced, nonetheless, to rely, figuratively speaking, to an increasingly great extent on the "carrot" for impelling the worker to labor.

This conclusion is entirely in keeping with actual processes in the capitalist world up to the frontier of the 1980's. However, in connection with the exacerbation of the problems of capitalist reproduction, specifically the sharp increase in the army of unemployed, capital has switched to a manifest counteroffensive, attempting to do away with many of the relatively recent social gains of the working class. This process has affected the level of wages, the amount of leave and social benefits. Under such conditions the "carrot" and progress in the "humanization of labor" sphere are clearly being relegated to the background.

All the more important is determination of the prospects of the "humanization of labor" under the changed conditions of the current decade. It may be hoped that E. Vilkhovchenko, remaining loyal to his chosen subject for many years, will continue his research.

I would like the author to broaden the sphere of research thanks to the greater enlistment of actual Japanese and theoretical West European material. In this monograph, on the other hand, the analysis of the concepts of bourgeois labor specialists is confined predominantly to Anglo-American publications.

The book contains propositions with which it is impossible to agree. For example, the author attributes "wildcat" strikes and the workers' occupation of plants to spontaneous forms of the workers' protests (pp 19, 23). As far as "wildcat" strikes are concerned, they appear to be such from the viewpoint of the employers and collaborationist union leaders. In reality this form of the workers' struggle frequently represents protests by the most militant local union organizations unwilling to consent to compromise. The workers' occupation of enterprises also demands a high degree of organization and is employed by the unions mainly at the time of mass lockouts. Clearly, its mention in the said context is hardly justified.

The said shortcomings do not alter the overall positive impression of the monograph in question.

FOOTNOTE

* E.D. Vilkhovchenko, "Novyye formy kapitalisticheskoy ekspluatatsii. Teoriya i praktika: kriticheskiy analiz" [New Forms of Capitalist Exploitation. Theory and Practice: A Critical Analysis]. Exec. ed. Academician A.G. Mileykovskiy, Moscow, Izdatelstvo "Nauka", 1985, pp 192.

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BOOK ON NEOCONSERVATISM, 'NEW RIGHT' REVIEWED

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 141-143

[R. Kapelyushnikov review: "New Book on the 'New Right'"]

[Text] The work in question (*), which was published in the "Criticism of Bourgeois Ideology and Revisionism" series, is devoted to a most pronounced phenomenon in the ideological life of the contemporary West. All spheres of bourgeois society--economic, social, cultural--are in the grip today of the so-called "rightwing conservative wave". The socioeconomic prerequisites of the conservative shift, its ideological sources, contradictions and prospects, the class thrust--the Hungarian political scientist's analysis is concentrated on these key questions.

The main task of the study, as formulated by the author himself, is reconstructing the system of views of neoconservatives and the "New Right" as some kind of single whole. The analysis is made on the basis of the example of four leading capitalist countries--the United States, the FRG, France and Great Britain. Much attention is paid to the national specifics of neoconservatism in each of them. In the area-study chapters the reader will find a wealth of factual material.

While rightly emphasizing the reactionary class essence of the ideology of neoconservatism B. (Kepetsi) observes that the conditions "for perception of the ideas of neoconservatism or the New Right were created by crisis phenomena in capitalist society" (p 11). But before being perceived, these ideas had to have been advanced by someone. Who was at the source thereof?

They were predominantly intellectuals disenchanted since 1968 with the theories and practice of the "New Left". The chapter "The Conservative Wave and the Western Intelligentsia" is, perhaps, the most interesting in the book. The author dwells in detail on the change under the conditions of contemporary Western society in the place and social functions of the intelligentsia, which has found itself enlisted in matters of administration with the use of the mass media. He quotes the shrewd observation of the French sociologist R. Debray on the social principle of the "top intelligentsia": "To have authority, savoring all its benefits, and not have the annoyances which attend the possession of power" (p 16).

Another, no less important, question, however, remains unanswered. The distinctiveness of the intelligentsia as an intermediate stratum is that it expresses not only its own immediate interests but also catches and structures conceptually the interests of the remaining social groups of bourgeois society. Why, then, has a considerable proportion of the Western intelligentsia, about which J.-P. Sartre once said that it "could only be left" (p 13), switched so abruptly in an ideological respect to the side of the bourgeoisie? Far from everything is as yet clear here also, unfortunately.

The chapter on the spiritual "genealogy" of neoconservatism is extraordinarily rich. Here we encounter the names of E. Burke and A. de Tocqueville, A. Smith and J.S. Mill, M. Heidegger and M. Weber, M. (Sheler) and K. Popper, M. Friedman and F. Hayek.... The list is so diverse and contradictory that it is clear that there can be no question of neoconservatives' adherence to some one, clearly drawn intellectual tradition. Whichever thinkers of the past you please, they may be enlisted in the role of "spiritual fathers," and each country will have its own authorities. It is not this that combines the different ideological currents of a rightwing persuasion but the fact that the "lessons" which neoconservatives derive from an appeal to the legacy of the past are unusually uniform: protection of private property, exaltation of the moral values of capitalism and anticommunism.

What, then, is the specific feature of the ideological status of contemporary neoconservatism? In our view, it is the fact that a synthesis of traditional conservatism and liberalism in the classical, "European" meaning of this concept has occurred within its framework. The term "liberalism" is employed, as is known, in opposite meanings in West Europe and the United States (the fact that the author does not mention this could create difficulties for some readers). In West Europe the opponents of government intervention call themselves "liberals," in the United States, bourgeois reformists advocating the increased role of the state (therefore in order to avoid confusion the special term "libertarianism" was introduced even in the United States).

The author touches only in passing on the question of the differences between neoconservatives and the New Right. In each case the dividing line is drawn in its own unique way and sometimes is altogether virtually imperceptible. In different countries these names could be adopted by ideological currents which are barely similar to one another. Nonetheless, as the Hungarian scholar shows, groups of the intelligentsia adhering to rightwing views prefer to call themselves neoconservatives, and organizations belonging to mass movements, the New Right.

The book traces excellently the institutional mechanism of the spread of the new ideological currents in contemporary Western society. Propaganda activity is developed right away, as it were, both from above and below--from the heights of academic departments and from the depths of the mass consciousness. On the one hand groups of intellectuals form around this publication, university, research institute and scientific foundation or the other. On the other, "committees" or "coalitions" from the ranks of ordinary civilians, which then begin to act on the political scene as lobby groups, are created in support of some selfish political demands (like a tax cuts, a ban

on abortions and so forth) or as a result of the activity of a variety of religious preachers. It is the countermovement of these two streams which can explain the fact that such seemingly mutually exclusive characteristics as intellectualism and anti-intellectualism, elitism and populism are frequently encountered upon an evaluation of the "neoconservative wave".

A big place in the work is occupied by an analysis of a new, highly significant ideological phenomenon--the use of the specific results of the liberal arts and natural sciences for ideological purposes. And the initiators, furthermore, are usually the scholars of the West themselves, who begin to draw from their special scientific theories philosophical conclusions and advance on this basis prescriptions for the salvation of mankind.

The concluding chapter of the book is entitled "Ideological Reconstruction Guided by Conservatism". The most common, determining characteristics of the ideology of neoconservatism and the New Right are drawn together here. What does the scholar distinguish as being most important and fundamental?

He considers the distinguishing feature of these currents primarily historical pessimism and a lack of faith in the possibilities of man's perfectibility (p 107). From this comes the struggle against "utopianism" and all plans for a better, consciously built and consciously controlled society. Understandably, this "sin of constructivism" (F. Hayek's expression) indicts primarily Marxism. The neoconservatives believe that merely a gradual evolution of society, being the unpremeditated result of the individual actions of a multitude of people, is possible.

At the same time, as the author rightly observes, this historical pessimism is combined with a belief in the boundless possibilities of capitalism and in the fact that it is capable of securing a higher material living standard than socialism. Neoconservatives do not agree with the verdict of J. Schumpeter, who believed that capitalism was doomed because its own economic achievements gradually erode the moral principles on whose basis alone it can continue to develop. From the viewpoint of the neoconservatives the threat to the value system of capitalism emanates not from its own economy but from left-radical ideology. It is for this reason that it is directing such efforts toward a revival and rehabilitation of the spiritual foundations of capitalism (p 122).

B. (Kepetsi) characterizes the neoconservatives' position thus: "Among the values of capitalism, they place a particularly high value on economic freedom, which, they believe, guarantees man's inalienable rights" (p 15). From this comes the glorification of market spontaneity, competition and individual enterprise. At the same time the "primordial" conservative values hold good also--traditionalism, fundamentalism, nationalism and religiosity. The idea according to which the growth of the well-being and the spiritual development of society are best secured in the course of the competition of different cultural traditions serves to combine such seemingly barely combinable principles as competition and traditionalism.

Neoconservatives deny the need for government control of the capitalist economy, sharply criticize "bureaucratization" in all its forms and accuse bourgeois democracy of having become an object of the manipulation of interest

groups. The social infrastructure of present-day state-monopoly capitalism--the so-called "welfare state"--incurs their special dislike, the book emphasizes (p 121). At the same time, however, neoconservatives advocate an increase in the law enforcement functions of the state, a buildup of military power and an aggressive foreign policy. Therefore their attitude toward state power may be expressed thus: they are against "big," but for "strong" government.

A permanent target of the neoconservatives is the idea of equality (p 112). They recognize it only in the legal sense as the equality of all before the law, but are implacable toward any measures contributing to greater economic equality. They employ criticism of the idea of equality to justify the need for a hierarchical society (p 116). And, of course, avowed anticommunism and anti-Sovietism remain indispensable attributes of rightwing conservative ideology.

The group portrait of contemporary conservatism presented in the work is varied and accurate. However, the book in question not only provides answers to many important questions but also leads to the formulation of a whole number of problems. The rightwing conservative shift occurred in the period of the crisis upheavals of the 1970's-1980's. Why had the preceding crises brought about a radicalization and leftward turn of the social consciousness of capitalist countries and the present ones led to a strengthening of rightwing conservative trends? Why were the liberal and social-reformist currents unprepared and unable to counterpose anything in any way practical to the prescriptions of the neoconservatives and the New Right? Neoconservative ideology expresses the interests of monopoly capital, but why is this occurring in the form of nostalgia for the era of free competition and individual enterprise? What is behind neoconservatives' sharply critical attitude not only toward bourgeois liberalism and social-reformism but also fascist rightwing radicalism? Why do they so readily appeal to anticorporate slogans?

The Hungarian scholar's trenchant and interesting investigation prompts reflection on these and many other questions awaiting the most serious study by Marxist political scientists.

FOOTNOTE

* B. (Kepetsi), "Neokonservatizm i 'novyye pravyye'" [Neoconservatism and the "New Right"], Moscow, Izdatelstvo politicheskoy literatury, 1986, pp 144.

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BOOK ON THEORY OF INTERNATIONAL RELATIONS REVIEWED

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 144-146

[V. Lyubchenko review: "Study of International Relations: Systemic Approach"]

[Text] The book in question (*) is this author's second work devoted to an analysis of international relations from the standpoints of a systemic approach. The ultimate purpose of this research, it would seem, is the creation of the conceptual apparatus of a theory of international relations corresponding to the demands of contemporary science and possessing a high degree of efficiency in practical use.

There is no doubt as to the relevance of the task advanced by E. Pozdnyakov. International relations as a subject is a relatively clearly drawn and integral sphere. As far as the methods of the study of it are concerned, a highly varied conglomerate of approaches is revealed here--from journalistic commentary through philosophical reflection.

On the other hand, it is well known that any scientific discipline is not only theory. Physics, for example, does not amount merely to theoretical physics, although the explanatory and predictive force of the latter has long served as an example and goal of theoretical constructions in chemistry, biology, geology, medicine and such. The empirical component in all so-called "positive sciences" cannot be excluded in principle but it must--and theoretical physics, as a most advanced science, shows that it can--be organized and subordinated to theory and operate therein as a corroborative example.

It is still a long way from such a correlation in the science of international relations. This theory is merely in an embryonic state, and the conceptual apparatus largely makes do with the arsenal of journalistic and diplomatic vocabularies; upon examination, explanations often prove to be merely commentaries, and forecasts are in the majority of cases confined to a recording of contrasting trends. The situation in the theory of international relations has repeatedly, and not without reason, been compared with the situation in pre-Newtonian or even classical physics.

At the same time there is an urgent need for the development of theory in the sphere in question and an interpretation of the vast amount of empirical

material pouring in daily and hourly in a wide stream. Research interest here, more than anywhere else, is sustained by fervor and the hope that the theoretical interpretation of problems of international relations will somehow help mankind, albeit indirectly, to make the world a surer and safer place to live.

So theory is necessary, and its elaboration has to be started from the very beginning--from a revision of popular ideas. But this, as historical examples show, usually initially gives rise to the heaviest fire of criticism and, later, is evaluated as an exercise in trivial rhetoric. E. Pozdnyakov's service is seen to be the fact that, while knowing these vicissitudes of scientific fate, he has nonetheless attempted to investigate the customary terminology, separate ideas from concepts and ascertain and allow the reader to perceive the dialectics of the latter.

As the author points out in the introduction, "the work generally pays greater-than-usual attention to the conceptual apparatus, which remains a weak spot of theoretical research in the sphere of international relations and states' foreign policy activity and without whose elaboration it is hardly possible to speak seriously about a theory of international relations" (p 5).

The method helping the scholar penetrate the realm of concepts of the international-political sphere is a systemic approach in the original interpretation of the author. Unfortunately, this fashionable phrase has a multitude of differing interpretations. A systemic approach is interpreted by some people as a new school in methodology, being a product of the structural changes in science as of the mid-20th century, others, on the other hand, see it merely as the terminological surmounting of the dialectical method. In our view, the interpretation proposed by E. Pozdnyakov is closer to the second concept. We are persuaded of this by such features of the methodology employed by the author as unity of analysis and synthesis and the systemic-functional and historical-genetic approaches, an examination of the laws of the functioning and evolution of the system of international relations as law-tendencies and emphasis on the ascertainment of contradictions.

We would note that the object of study in the work in question is not international relations as a whole but their most important component--interstate relations.

The first chapter of the work is constructed around criticism of the everday understanding (and a contrast) of the terms "foreign policy" and "domestic policy". Starting from the well-known proposition of V.I. Lenin, who opposed this popular counterpoise, the author analyzes a whole number of similar, but not identical categories ("politics" and "political activity"; "political activity" and "political function"; "essence," "content" and "form" of political activity; paradoxes of evaluations of the "progressive-reactionary" type arising within the framework of the dichotomy of foreign and domestic policy). The central result of the study--selection as the key concept of the "political activity" category and determination of a system of co-ordination in relation thereto of the other categories--would seem sufficiently justified.

Less trenchant is the discussion of the category of a state's foreign policy interests, which amounts to their division into principal and specific.

The author justifiably criticizes the methodology of the isolation of "factors" which inundates studies of international relations. It largely predetermines a mediocre standard of the works, which are written in the key of ascertainment and discussion of the "factors" influencing this international process and event or the other. The superficiality, ambiguity and unproductiveness of the "factor" approach upon an analysis of specific problems of international life is demonstrated on the basis of specific examples.

The second chapter is devoted to the system of international relations and its nature and structure and is thereby a direct continuation and development of the ideas set forth in E. Pozdnyakov's preceding monograph ("A Systemic Approach and International Relations," Moscow, 1976). The need for a return to the subject of the "system as a whole" after an analysis of the basic concepts of state activity as a component thereof was dictated by the insufficient degree of study of such key concepts as the systemic nature of international relations and the integrity of this sphere. Particularly interesting, although not indisputable, is the analysis of the integrity concept. Starting from K. Marx's ideas concerning "developing integrity" with reference to the victory of the capitalist production mode, the scholar develops a concept which--with reference to the system of international relations--is to reveal the dialectics of the integrity of the contemporary world.

At the same time it would seem that some of the ideas which he expresses in this connection are in need of further verification. The logical noncontradictoriness of two basic propositions: "there cannot in principle be a non-integral social system" and "a single, all-embracing system of world interstate relations began actually to take shape merely on the frontier of the 20th century" (pp 70, 74) remains questionable, we believe. And further: "Prior to this there had been individual regional subsystems, each of which functioned and developed in relative isolation.... But even under these conditions the systemic nature of interstate relations was spontaneously making itself felt" (ibid.). Adduced in confirmation is the "eternity" of the "concept of balance," which is dubious in the historiographical respect even (this concept is comparatively new in the history of political thought). In chapter three it is analyzed in more detail, but, in our view, the author is clearly inclined to make it absolute. Of course, evaluation of the European system of the 17th-19th centuries as a "balance of power" system has already become a traditional platitude, but its transference, for example, to the contemporary system of Arab or Latin American states would undoubtedly be stretching the point. Other regularities pertaining to a different era operate here.

The fourth and final chapter is devoted to the "systemic crisis" and "interstate conflict" categories and their interrelationship. "Crisis" is interpreted in the work as broadly as could be as a reflection of the contradiction inherent in the process of development of the system. A typology of crises both in terms of the degree of their gravity and duration and in terms of the degree of local (global) influence on the system as a whole is

outlined. The scholar considers the main cause of international crises shifts in the correlation of forces. Crises are resolved, he believes, when the system reaches a new balance. A change in the composition of its principal participants is possible here (which distinguishes E. Pozdnyakov's concept from the model of the American political scientist M. Kaplan, who believes that the composition of the principal participants in a "balance of power" system tends to be preserved).

Whereas the author attributes the crisis concept to the sphere of development of the system, he connects the "conflict" category with its functioning and on this basis distinguishes "crisis" and "functional" types of conflicts.

The monograph in question is a notable phenomenon in the methodology of the study of international relations. It will help practical workers, I believe, acquire a different, bird's eye, view, as it were, of the examination of problems. For scholars it is an undoubted addition to the box of knowledge. For the nonspecialist it is an encounter with a thoughtful and unusual book.

FOOTNOTE

* E.A. Pozdnyakov, "Vneshnepoliticheskaya deyatelnost i mezhgosudarstvennyye otnosheniya" [Foreign Policy Activity and Interstate Relations]. Exec. ed. D.G. Tomashevskiy, doctor of historical sciences, Moscow, "Nauka", 1986, pp 190.

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U.S. BOOK CRITICAL OF SDI REVIEWED

Moscow MIROVAYA EKONOMIKA I MEZHDUNARODNYYE OTNOSHENIYA in Russian No 1, Jan 87 (signed to press 16 Dec 86) pp 146-149

[I. Akhtamzyan review: "Sober Judgment on 'Star Wars'"]

[Text] A group of staffers of the International Security and Arms Control Center of Stanford University (California) has published a group monograph entitled "The Reagan Strategic Defense Initiative" (*), which examines the main aspects of the SDI--the well-known "brainchild" of the U.S. president.

The authors of the book are no novices in this field. P. Farley, for example, served for over 10 years in U.S. Government establishments. In 1969-1973 he was deputy director of the Arms Control and Disarmament Agency, while simultaneously deputy head of the American delegation during the first stage of the SALT negotiations. The permanent Treaty Between the USSR and the United States Limiting Antimissile Defense Systems (ABM), which is now the main barrier in international law in the way of militarization of outer space, was, in particular, formulated at that time.

The first pages of the work state clearly and definitely that it would be wrong to reduce the question of the creation of antimissile defenses to a technical assignment, discussion of the "dimensions of the battle stations" in space and so forth, as certain apologists for the notorious "initiative" would like. Political problems affecting the strategic mutual relations of the two great powers should be at the center of attention. This idea would seem to be of fundamental importance. The ABM Treaty and R. Reagan's "initiative" are essentially two diametrically opposite approaches to the problem of ensuring security: the first represents the path of joint efforts, primarily of the nuclear powers, for the elimination of arms, the second, a most dangerous prospect of a continued race.

Analyzing the SDI together with the Pentagon's specific program for its implementation (1984), the scientists conclude that it is a question of a minimum of two purposes here. The beguiling ideas of "making nuclear weapons unusable" and "defending people and not exacting vengeance" (pp 102, 103) are intended for indoctrinating public opinion. However, in practice, as the

monograph shows, the policy of military developments in this sphere is aimed at supplementing and reinforcing with space-based weapons that same nuclear "deterrence by intimidation," at least in the foreseeable future.

The important, key concept of defense has recently been inundated in a mass of speculation across the Atlantic. The authors of the book recall in this connection that, as was ascertained during the preparations of SALT I even, "defensive" strategic weapons may be of an offensive nature, if they make it possible to inflict an unanswered first strike (p 32). It was at that time, on the frontier of the 1970's, that the delegations of the USSR and the United States jointly determined the existence of an inseparable strategic connection between nuclear missiles and antimissile defenses. This was recorded in the preambles to the agreements of the first stage of strategic arms limitation pertaining to offensive and defensive arms which were signed and which took effect simultaneously.

Under present conditions, when the Washington administration has openly adopted a policy of violation of the strategic offensive arms limitation agreements, the positive evaluation of the SALT accords contained in the work sounds as a particularly pertinent warning. Compliance with the provisions of the 1972 Interim Agreement, the American specialists believe, creates "a fragile, but irreplaceable bearing on which the current limitations on separating warheads... and the upgrading of arms are based" (p 34). They saw in advance, as it were, the subsequent destructive steps of the White House, emphasizing in their work that without compliable limitations on the number of launchers, the quantity of warheads on each missile and modernization the negotiating process would run into even greater difficulties (p 88).

The monograph gives the ABM Treaty the highest marks. In the authors' opinion, it was "carefully compiled" and based on preservation of its effectiveness under conditions of technological change. In accordance with this document, they observe, "exotic" novelties "are not removed from the list of the treaty's restrictions, although separate mention is not made of them" (p 10).

As the work emphasizes, the significance of the 1972 treaty is far broader than simply the determination of limitations on the arms race. The policy of the USSR and the United States in the ABM sphere reflected therein, we read, "is the basis of the present narrowing of the approaches to problems of strategic stability, the prevention of nuclear war and arms control and reductions" (p 29). This document determines the general prerequisites of the strategic mutual relations of the two great powers and facilitates the search for political measures to prevent a military cataclysm. The authors call the treaty "a charter of recognition of the consequences of nuclear war" and of the need for joint steps in the matter of deliverance from the nuclear threat (p 6).

To believe Washington strategists, the SDI by no means goes beyond the framework of the limitations established for antimissile defenses. The work in question definitely expresses a different viewpoint. It notes, inter alia, the obvious discrepancy between the ABM systems envisaged in R. Reagan's well-known speech (23 March 1983) and paragraph 1, article V of the treaty. In a broader context the entire stategic concept contained in the SDI is contrary

to the initial premises of Soviet-American relations in the military sphere and negotiations, the main result of which remains the ABM Treaty (pp 5, 8).

The SDI runs counter to other documents in international law also. Implementation of individual components of this program could, the authors warn, violate the 1963 treaty banning nuclear tests in three spheres and the 1967 treaty on the principles of states' activity in the sphere of space exploration. They reach the important conclusion that the terms of the nonproliferation of nuclear weapons would have nothing to gain in this case either (p 29). And the SDI by no means facilitates the task of a reduction in strategic offensive arms--it is simpler to conjecture on the high extent to which its accomplishment would be made more difficult (pp 5, 84, 85).

Revealing the military-strategic and technical aspects of "star wars," the authors turn once again to the period of the end of the 1960's-start of the 1970's and highlight three circumstances which prompted the USSR and the United States to conclude the ABM Treaty. These were the technical unreliability of the attempts to create a full-scale antimissile defense, the destabilizing impact of the offensive and defensive arms race, particularly in crisis situations, and also the colossal cost of antimissile defenses given the relative cheapness of the means of breaching them. The reasonable question arises: has there been a radical change in these factors in the 15 years which have elapsed since the treaty was formulated? The analysis made in the book leads the reader to answer in the negative.

The part of the study which deals with the state and prospects of the development of military technology in the most important areas defined by the SDI program appears stronger than the others. The latter include the creation of lasers with a varying power supply and basing, beam weapons and operational systems based on the use of kinetic energy.

As the work observes, there has been a considerable increase in recent years in the possibilities of generating, focusing and targeting high-energy laser and radiant fluxes. Simultaneously there has been an appreciable augmentation of the capacity for the collection, processing and transmission of large amounts of information. The possibilities of computer technology and radar systems and the mobility of sensors have grown (pp 39, 88). Certain shortcomings of the ABM systems which preceded the SDI have thereby been removed. However, is all this sufficient for advancement, albeit in the future, of the task of the creation of a full-scale antimissile defense?

The considered evaluation of the technological prospects of "star weapons" made in the book persuades us as certainly as can be that neither in the phase of guidance of the delivery rockets into space nor during the flight of the warheads to the targets are existing or future types of antimissile defenses capable of tackling the task of intercepting all operational components (pp 50, 55, 60). The specialists allow of reservations merely in respect of the possibility of the antimissile defense of individual areas with fortified facilities. Full-scale antimissile defense of a country's territory, on the other hand, is impracticable. In all cases here the calculations have been made with an "at best" orientation and one geared to the most efficient of future types of antimissile defenses.

The option of the deployment in space of a chemical laser is examined by way of illustration (pp 44-50). Inasmuch as in a geostationary position (orbital altitude of tens of thousands of kilometers) the latter is ineffective a manifold duplication would be necessary--in view of the Earth's rotation--of the battle stations, whose number would have to amount to many dozens and hundreds even. The weight of each of them would run to hundreds of tons, which would require a large number of refueling launches. From a distance of the order of 1,500 km the laser would have to "hold" a spot of an area of approximately 0.5 km for 1 second (in this time a rocket covers a distance of 7 km). And, furthermore, this would be "possible" only given the practically unattainable, minimum dispersion of the beam combined with a power of the laser hundreds of thousands of times higher than exists today.... And a multitude of no less complex unsolved tasks still remains to be tackled.

The work also expresses a negative attitude toward the proposition concerning the alleged "stabilizing role" of the SDI. The experts emphatically state that a simultaneous nuclear arms race and the SDI "promises nothing good" for strategic stability. The mixed offensive-defensive makeup of strategic arms, they emphasize, would in itself look like a position for administering a "first strike," which is particularly correct for an antimissile defense with space-based components (pp 69, 70).

A highly costly antimissile defense would be a manifest loser compared with the relatively less expensive breaching or counteracting weapons. If we take as a basis the data adduced in the monograph (see p 50), the creation of an antimissile defense for combating the other side's existing arsenal would take $500 billion and more, while a simple doubling of this arsenal would be many times cheaper.

The authors are convinced that, as in the past, the latest transatlantic challenge will lead to retaliatory steps by the Soviet side, whose concern they fully understand. If U.S. Defense Secretary C. Weinberger has declared that he could not imagine "a more destabilizing factor" than the appearance of a reliable Soviet antimissile defense, why should the USSR's leaders think differently about the American SDI? (p 23). The book calls the administration's ostentatious promise to "share" with the Soviet Union ABM information and technology "the height of improbability" (p 90).

As a result of the monograph's analysis the "strategic defense initiative" objectively appears to be the fruit and embodiment of an aggressive aspiration to military superiority hastily concealed by the propaganda "dream" of deliverance from "amoral nuclear intimidation". There inevitably arises in this connection the key question of politicians' special responsibility in the nuclear age. "Responsible leaders determining policy and programs should give thought not simply to their own hopes but also the real consequences of the decisions they make," the Stanford University specialists reasonably declare (p 31).

The work has managed to show that the ABM Treaty recognizes "deterrence" merely as the existing reality, outlining a prospect of gradual deliverance from nuclear weapons. In addition, the authors believe, it is not deterrence

in itself but its combination with "strict and uncompromising confrontation" which represents an ominous threat to the future of Soviet-American relations (pp 96-97).

The permeating key proposition of the study is confirmed by scientific analysis: no one knows how to create an impenetrable antimissile defense (pp VII, 63, 69). The defense of civilization against nuclear war by any method other than its prevention is an illusion, the specialists emphasize. An attempt to create an antimissile defense under current conditions is dangerous and disruptive of strategic stability.

Not confining themselves to criticism of the SDI, the scientists counterpose to the arms race a positive alternative, many elements of which parallel Soviet initiatives. They advocate the continued effectiveness of the ABM Treaty, which has clearly shown the possibility of a way out of total confrontation and the search for areas of cooperation, primarily in the business of disarmament. "In this context mutual deterrence assumes the form not simply of a mutual threat but rather of mutual abstention from any inclination to be the first to use nuclear weapons," the authors forecast (p 97). They advance specific proposals pertaining to the achievement of a situation conducive to peace: renunciation of the testing of components of an antimissile defense, reduced spending on the SDI program and negotiations with the Soviet Union on the ABM problem linked with discussion of strategic arms limitation and reduction.

Of course, we cannot agree with all the propositions and evaluations of the Stanford University specialists. Nor is their work free of certain cliches (inventions concerning the possibility of "nuclear threats" on the part of the USSR, attribution thereto of some "aggressive intentions" in respect of West Europe and the Far East and such) which are, unfortunately, customary for the majority of bourgeois authors.

There is no doubt, however, that the basically realistic initial premises combined with sober analysis have enabled the scholars to present the whole true picture of the prospects and disastrous consequences of the implementation of Reagan's "star wars" program.

FOOTNOTE

* S. Drell, P. Farley, D. Holloway, "The Reagan Strategic Defense Initiative: A Technical, Political and Arms Control Assessment," Cambridge, Mass. Ballinger Publishing Co., 1985, pp XIII + 152.

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